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PHYSIOLOGY.

LECTURES

ON THE

PHYSICAL CONDITIONS

OF THE

TISSUES OF THE HUMAN BODY

AS APPLIED TO THE EXPLANATION OF

VITAL PHENOMENA.

Delivered at the College of France in 1834.

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LECTURE XXII.

Cause of the Râles Crepitant, De Retour, Sibilant, and Meuqueux.—Absence of the Respiratory Murmur.—Bruits depending on Abnormal Resonance of the Voice in the Chest.—Resonances connected with Tubercular Cavities in the Lungs,—the Râle Caverneux, and the Bruit Sec.—Bruits of Movement of the whole Lung.—Bruit from Pulmonary Emphysema.—Crepitation of the Lungs not a Normal Sign.—Bruit of Emphysema and Crepitation.

AT the close of our last lecture, we spoke of the different abnormal sounds or râles that take place in the air-cells themselves, and we endeavoured to show the precise physical conditions accompanying each change of the respiratory murmur; the râle crepitant is, as we said, one of those most frequently met with; it presents itself in various diseases and under different circumstances, but the essential point to consider is the connexion, or, rather, the dependence of this râle, upon some deposit of fluid matter in the vesicles of the lungs; for when do we find the râle crepitant best marked? In cases of engorgement, in the first stage of severe pneumonia. This is a well-known fact. But why? Because when the pulmonary tissue is the seat of an acute inflammatory affection, we have a deposit of fluid in the minute terminations of the bronchi, and in the vesicles, which offers an imperfect impediment to the passage of air through those small conduits, and thus develops the peculiar crackling sound whence the "râle" has derived its name. The proof of this is, that when the vessels are completely blocked up, when the tissue of the lung has undergone the change which pathologists call "hepatization;" when the portion of lung is converted into a solid mass quite impermeable to air, you no longer find the râle crepitant; it has disappeared, together with all other respiratory sound in the part, for the simple and evident reason, that the air no longer penetrates into the interior of the vesicles.

Remark, now, how perfectly our theory agrees with all the circumstances observed during the progress of the disease. In the commencement of pneumonia you have the râle crepitant, from the deposit of an inflammatory product in the air-cells; as the disease advances, and the lung becomes hepatized, the stethoscopic symptom disappears, because an essential change has taken place in the physical conditions of the part; finally, when resolution commences, a process which, as you know, comprehends not only a cessation of inflammatory action, but also a removal of all the morbid products of that action; when, as I say, resolution commences, you find the "râle de retour," you again hear the râle crepitant, because, by a removal of the more solid parts of the matter deposited in the air-cells, these latter have become again partially pervious, the air is admitted through a dense fluid, and the return to the original physical state necessarily brings with it a repetition of the original sound.

Thus, Gentlemen, you see how the different abnormal sounds that accompany respiration, are merely the result of so many different physical dispositions of the lung, causing a greater or less obstacle to the passage of the air, and modifying the

degree of frottement according to the extent and situation of the impediment. The râle sibilant is also produced under the same circumstances; whenever a quantity of viscid fluid collects in the trachea, so as to diminish the caliber of the tube, the air necessarily passes through a small opening into a larger one, the parietes of the tube are put into vibration, and the peculiar sound, or *sifflement*, is the result. The trachea is likewise the seat of various other bruits; thus you must have remarked the very strange noise which some persons make when they are going to sleep. I do not allude to snoring, but to a sound that takes place lower down in the chest; the mucous secretion of the membrane lining the air-tubes stagnates in the passages, and gives rise to an immense variety of sounds, all of which are referable to the sifflement produced by the deposit of a viscid matter in the bronchi.

It is not, I think, impossible to develop many of these sounds even in the dead body; the experiment is a new one, and I cannot tell how far we may succeed; but should we be able to reproduce any one, we shall not only obtain a demonstration of the truth of the theory I have laid down concerning the cause of the sounds heard in the chest, but also a means that may hereafter be employed with great advantage for your instruction. The subject, however, is surrounded with numerous difficulties. We often fancy we have placed the dead organ exactly in the same physical conditions as the living one, but we find that some little circumstance has been overlooked, by which our intention is defeated, or the result of our experiment has completely changed. You know when a large quantity of viscid fluid is collected in the air-tubes, you have always more or less of the râle muqueux; let us now try to imitate this abnormal sound, let us see whether we cannot reproduce it in the dead animal.

I now inject a quantity of viscid fluid, as before, into the trachea of the dog before me, who has now quite ceased to live; when the lungs are inflated, I certainly hear a kind of sifflement, but I cannot well distinguish the râle muqueux; indeed, I do not like to place my ear too close to his chest, for the animal is full, as you see, of this dirty insect; we will free ourselves from the inconvenience, by dissecting off the integuments of the thorax; some more fluid has been thrown in, the pipe is again fitted to the trachea, and on listening attentively I hear a feeble mucous râle; the sound is not so clearly developed as I could have wished; however, there can be no doubt whatever, but that an obstacle to the free passage of air through the bronchi, arising from the presence of a viscid fluid, as mucus, &c., is the physical cause of the bruit to which your attention has been directed.

In all the circumstances hitherto noticed, the air, although more or less interrupted in its passage, still enters the pulmonary vesicles, and produces some modification of the respiratory murmur; but in many cases the sound of the pulmonary expansion is null, and you may then conclude with certainty that the pulmonary tissue has been altered in a greater or lesser degree. Thus, in hepatization of the lung, when you auscult the chest, you may have various pathological sounds, but you find no trace of the respiratory murmur in the portion of lung so affected: this is a sure symptom of some grave alteration of the air-cells: again, the development of the lung may be prevented by an effusion of fluid into the cavity of the thorax; the lining membrane of the chest may throw out a quantity of serum; the wound of a bloodvessel may give rise to an internal hemorrhage, or inflammation may terminate in the secretion of an enormous quantity of pus. In all these cases the lung is forcibly pushed back against the parietes of the thorax, and the patient makes vain efforts to fill the organ with air; his respiration is very laborious, but when you place the ear on his chest you hear no respiratory murmur, because the pressure caused by the presence of the adventitious fluid, is sufficient to overcome the force with which the air endeavours to enter and distend the cells; hence, whenever you find a sudden suspension of the normal bruit over a large surface of the chest, you may suspect some mechanical impediment of this kind, and seek for the other signs of effusion.

The examination of these several bruits is of immense importance in the practice of medicine. Unlike many other symptoms of disease which are unfortunately too often obscure and uncertain, they give clear and distinct notions of the nature of the change which has taken place in the respiratory organ, and thus lay the foundation of what always should be the physician's first object—viz. a correct diagnosis. On this account I cannot insist too strongly on the necessity of your observing them with the utmost attention, —of endeavouring, whenever an opportunity may offer, to attach each physical effect to its physical cause, and thus enlarging the domain of our science in the most sure and profitable manner.

We have now to pass to the study of another set of bruits, very different from the former, and of a very singular nature. Hitherto we have treated merely of the dif-

ferent modifications observed in the sounds proceeding from the act of respiration, but those to which I now propose to call your attention, depend on abnormal resonance of the voice in some part of the chest, and in this respect may be termed "bruits of resonance." The examination of these phenomena is fully as interesting as that of the bruits which depend upon respiration, for they reveal many changes that remain concealed under every other mode of investigation. Thus when a solid body is contained in the chest, when a portion of the lung is excavated by a large cavity, or a considerable effusion has taken place in cases of pleuritis, we have corresponding phenomena of resonance that indicate, with a surprising degree of accuracy, the precise nature of the change, at a time when the other symptoms are wanting, or at best are deceptious. How often are we enabled by auscultation to discover the presence of a cavity in the lungs of an individual who shows not one single sign ordinarily connected with its existence! It would be highly useful if we could succeed in reproducing at will these bruits de resonance, because we could then study with greater facility the physical conditions accompanying them; but before attempting this delicate and difficult task, let us take a brief view of the facts we have already determined.

We saw how easy it was to distinguish the different bruits which occur during respiration, and speak according to the place in which they are developed; thus we have nasal, laryngeal, tracheal, bronchial, and, finally, vesicular sounds or bruits, each having a characteristic peculiarity by which it may be distinguished from the rest, and possessing a certain value in the discrimination of various morbid states. If we have bestowed our chief attention on the sound generated in the ultimate ramifications of the bronchi, it was because this portion of the respiratory apparatus, being more frequently affected than any other part, merits a more detailed and laborious examination.

The bruit which takes place where the minute air-tubes terminate in the pulmonary vesicles is, as we have said, composed of the sum of small, dry, sufficiently intense bruits, produced by the entrance and rubbing of the air against the parietes of the air-cells. This is the true respiratory murmur, soft and harmonious in its natural state when no impediment exists to the free ingress and egress of the atmospheric fluid; but whenever any obstacle exists to the ready circulation of air, there the true respiratory murmur is supplied by the sound of bronchial respiration, and we hear a loud, sonorous bruit, sometimes resembling the noise one makes by blowing into a tube closed at one end, sometimes representing the souffle produced when we attempt to blow out a candle. We have also seen how these different bruits are modified under the influence of circumstances modifying the structure or physical conditions of the part in which they occur; thus when the bronchi are filled by a quantity of mucus or any other viscid secretion, the souffle bronchique loses completely its sonorous character, and in its place we have the râle muqueux.

These modifications of sound are certain indications of physical changes of various kinds (and this is the main point to remember), because when we introduce a viscid fluid into a tube, we can develop many of the peculiar bruits, according to the nature of the liquid, and the caliber, composition, &c., of the tube: sometimes we obtain a prolonged bruit, a kind of sifflement, approaching closely to a musical sound; at other times a dry, loud bruit; in short, many of the abnormal sounds that are observed during life. And here in respect to the word "sifflement," let me beg you to remark how even LAENNEC, though unknowingly, was forced to connect several symptoms of thoracic disease with certain physical conditions, for it was impossible for any one who investigated the nature and causes of the bruits that occur in the chest, to avoid comparing the respiratory apparatus to a musical instrument. The râle roufflant, the râle sibilant, the souffle bronchique, &c., are merely the result of certain physical conditions of the lung considered as an instrument of music, and are only to be explained by physical phenomena; if we adopt any other course we are sure to fall into error, and instead of obtaining a rational theory we become the slaves of a blind empiricism.

It is to be regretted that the time does not permit us to dwell at length upon the practical considerations attached to each of these bruits; the most we can hope to do is to give some general views which will occupy this and the following lecture. The first modification of resonance (for we now return to this part of our subject) which we have to examine, is that connected with the existence of a cavity in the lung. You know that in certain forms of thoracic disease, the affection commences by a deposite of that peculiar matter which pathologists call tubercular: there is perhaps no part of the body that does not occasionally present examples of this morbid change, but it occurs, unquestionably, much more frequently in the lung than in any other organ. After having remained in its crude, inactive state for a very vari-

able period of time, the tubercular matter, under the influence of causes that we cannot always seize, becomes concentrated, undergoes an internal change, softens, and at length is converted into a kind of liquid of a peculiar character; at the same time a portion of the lung is removed, and the space once occupied by the tubercular excavation now presents the appearance of a true one. The magnitude of the cavern varies, originally, according to the extent of the tubercle which it represents, and in some cases the lung may be more or less excavated in different points. You can readily conceive that an alteration of this nature in the structure of the respiratory organ cannot exist without modifying very considerably the respiratory sounds. In the first place, the true respiratory murmur cannot be heard in the point occupied by the excavation, for the evident reason that here the smaller branches of the bronchial tubes and the air-cells have been completely destroyed. You can have no bruit analogous to the respiratory one, developed in a part where no small membranous cavities exist against which the air may be pressed and rubbed.

When you auscult a patient labouring under this affection, you find one of two very different phenomena, depending upon the physical conditions of the cavity at the time the examination is made. Sometimes, as you all know (and this is infinitely the more frequent case), the cavity is filled by a quantity of thick viscid fluid, a mixture of pus, and other secretions; on other occasions the cavernous excavation is empty; these, you will allow, are two conditions differing merely in a physical point of view; the extent of the cavity is the same in both cases, its nature, influence on the constitution, &c., are the same; the only difference is the presence of a thick fluid on the one hand, and its absence on the other. Let us now see how the stethoscopic or physical symptoms are modified by this variety of states. In the first case you have what is called "gargouillement," or that peculiar bruit which is produced by the passage of air through a mass of viscid fluid; in fact, most writers compare it with the noise made when you blow into a solution of soap with a blow-pipe. The gargouillement, then, or the rale caverneux, is one of the best symptoms of the existence of a tubercular excavation, because it clearly expresses the passage of the air through a collection of viscid fluid, a circumstance that can only take place in cases of phthisis. I can easily demonstrate how faithfully the bruit represents the physical condition, by blowing into this vase containing a thick solution of soap, but it is unnecessary; you can at any time repeat the experiment for yourselves. When the tubercular excavation, instead of being filled with pus, is empty, and you place your ear on the patient's chest, you hear what LAENNEC has called the "bruit sec," "souffle sec," "tubaire," and a bruit de souffle in some cases so well marked, that, as the author of mediate auscultation has said, the observer fancies one was blowing into his ear. This bruit de souffle, connected with a cavern in a state of emptiness, is very easily distinguished, and in general well pronounced. It simply expresses the entrance of air into a tube, and if I blow with a moderate degree of force into this common tube, I produce, as you see, a kind of souffle somewhat analogous.

The connexion between the condition of the lung and the cavernous respiration is explained without difficulty: you have a cavity occupying a greater or less portion of the lung; it communicates with the external air, sometimes by a number of small tubes, sometimes by a single large one, for very often the walls of the cavern are lined with a false membrane, and only one or two large bronchial tubes are found to open into it. During inspiration, the air enters freely and fills the cavity; when expelled by the act of expiration, the air rushes through the tube or tubes, and thus develops the bruit sec, bruit de souffle, of which we speak. When a number of small tubes open into the cavity, the bruit is much less pronounced, and becomes what LAENNEC termed the "souffle voilé;" here the physical condition again explains not only the cause of the sound, but of its varieties. When the expelled air passes out through a number of tubes, the souffle is naturally modified, because it is distributed amongst a number, instead of being concentrated in one or two.

Let us now turn to another bruit, depending upon a phenomenon well understood at the present day, though it was unknown to LAENNEC and his school. LAENNEC remarked that in certain cases of thoracic disease, one of the chief stethoscopic symptoms is a bruit de frottement, which he attributed to the rubbing of one portion of the pleura against another, but he did not attempt to explain how this circumstance could account for the sound, nor did he seem to have any just idea of its true nature. Let me here recall to your memory what you saw in the course of an experiment performed before you sometime ago—viz. the manner in which the lungs ascend and descend in the chest during the act of respiration; there is no doubt of that motion. When we inspire and expire, the lungs not only undergo a change of magnitude, but

of place; they ascend and descend in the thorax (the subject being upright), according to the intensity of the respiratory effort; hence there is necessarily a frottement of the pulmonary pleura against the costal membrane.

It is easy to prove this fact by experiment. Here is the thorax of a human subject which we have disposed for the purpose. The integuments have been removed from the thorax; a bellows is attached to the upper part of the trachea: as I inflate or evacuate the lung, you see a regular ascent and descent of the organ, it is particularly remarkable here, on the left side, where a dark spot on the surface of the lung serves as a guide to the eye, and enables it better to follow the motions. This is sufficient to give you an idea of the alternate elevation and depression of the lung in the chest, though, if you remember, it was much more clearly seen in the living animal. We have, then, evidently, a frottement between the two surfaces of the pleura, but in a state of health this gives rise to the development of no sound whatever, because the pleura is smooth, and constantly lubricated, like all other serous membranes, with a fluid which is calculated to favour its motions; but in a state of disease, as, for example, in pleurisy, things are altered; the membrane is more or less covered by a thick, firm, consistent exudation. Its fine polish, characteristic of serous tissue, is lost; the surface, formerly even and smooth, has now become unequal. Hence when the lung ascends and descends, a frottement or rubbing of the surfaces so altered in structure takes place, a peculiar bruit is developed, and communicated to the exterior by the vibration of the parietes with which the false membrane is in contact. At a certain period of pleurisy we very often hear the bruit de frottement; this symptom did not escape the accurate observation of Laennec, but, as we remarked, he did not seize the physical cause upon which it depends. When the extraneous deposit is firmly organized, or converted into a species of cartilaginous tissue, we also hear the bruit, and in these cases it manifestly refers to the action of one hard body against another. There is also a case, pointed out by Laennec, very different from the former, in which the bruit de frottement is heard, viz., when the lung retains a quantity of air in its interlobular cellular tissue. Under these circumstances the respiratory organ remains very elastic and sonorous after expiration of the air contained in the vesicles, and develops the bruit de frottement, but it is not so easy to account for it physically in this case as in the former. However, it is valuable as a character of pulmonary emphysema, and gives a correct indication of the presence of that disease, whenever symptoms of pleuritis do not exist.

We now turn to another phenomenon, which is even less known or understood than the former. You must all have remarked how frequently this expression occurs in the description of autopsies,—"the lung was crepitant and sound." Crepitation is given as a sign of healthy lung by almost all writers, but I uphold, on the contrary, that it is much more frequently a sign of an alteration having taken place in that organ.

This question deserves a serious examination, one much more extensive than we can pretend to give it at this advanced period of our course, because the circumstances that favour crepitation may go so far as actually to be in themselves a cause of death, and a lung may be highly crepitant, and at the same time totally unfit for the purposes of respiration. Let us give some development to these propositions: here is the thorax of the dog whom we poisoned with prussic ether; the lung, as you see, fills the greater part of the cavity; it appears perfectly healthy; we see no trace of any lesion: now if crepitation be a sign of health, we ought certainly to find it in the lungs of the dog. I now open the thorax, in order to examine the organ more minutely; it occupies, as you may remark, a considerable space in the chest, and appears perfectly healthy; externally it exhibits a good pink colour; internally the structure seems sound; however, on looking more carefully, I find the lung is not quite so healthy as I thought; here and there you may see some small spots of extravasated blood, arising, no doubt, from the efforts which the animal made before death, and the lung, in fact, exhibits some crepitation; however, I say that when an animal dies quietly, without having made any efforts immediately before death, in most cases you have the respiratory organ quite free from crepitation; on the contrary, when the animal struggles much, and makes any violent muscular effort at the moment of death, you have a great and violent effort on the part of the respiratory organ also; the glottis becomes closed; the muscles which depress the chest, the expiratory muscles, act powerfully, and a great pressure of the air takes place in the chest; it is agitated and pressed on all sides by the external force, the elastic portion of the lung is submitted to a corresponding pressure, and, in some instances, even lacerated, or the air-cells become distended to such a degree as to lose their characteristic elas-

ticity. All this gives rise to a collection of a frothy fluid in the trachea and bronchial tubes, which is merely an accompanying circumstance, but not the cause, of death, as some authors have pretended.

From the description I have just given, you can easily understand how the air collects in the dilated cells, and gives the lung a character of crepitation, which, so far from being a sign of health, is, on the contrary, the result of a pathological condition immediately preceding death. I therefore say, do not give crepitation as one of the signs of a healthy lung, when you draw up the proces-verbal of an autopsy. The crepitation we observe in the dead subject is produced by some violent effort of the individual just before death, and you have a perfectly healthy respiratory apparatus, without its presenting any trace of crepitation.

If I now inflate the lungs of the animal before me with a certain degree of violence, I shall produce a different kind of crepitation, accompanied by emphysema. Before, the air-cells were only distended by the pressure of the air contained in them, during some efforts on the part of the animal; in the present case we will force the vesicles, and endeavour to efface them by introducing artificially a large quantity of atmospheric fluid. I have now inflated the lungs with a great deal of force, but have not yet produced any effect, apparently because the pulmonary tissue in the dog is very strong. Let us have recourse to art. I now force in some air through this large syringe, but the vesicles still resist. A little more: the bruit of emphysema is now audible, and, as you see, the air commences to pass into the lobes; the bruit we now hear offers that kind of cracement which characterizes emphysema arising from arrested respiration, and which rarely or never exists in emphysema produced in consequence of mere muscular effort. We will now proceed to ascertain in what state the lung is in this human thorax. Some air has already been forced in at an early period of the lecture, and I now throw in an additional quantity by this bellows attached to the trachea. We have not as yet produced any emphysema interlobulaire. I blow again: the air now passes from lobe to lobe; though on applying the stethoscope, I do not hear the characteristic bruit. However, you may remark, now that the chest is completely opened, the reason we did not well observe a while ago the ascent and descent of the lung; it is attached, as you see, by numerous strong adhesions to the parietes of the thorax.

The emphysema, of which I have just now given you an example, is curious, for when it has arrived at a certain point, it kills the patient suddenly; it impedes respiration, by preventing the dilatation of the air-cells, and thus converts a difficulty of breathing into a total impossibility. It is often the cause of the sudden death which takes place in cases of hooping-cough, and when you examine the body to seek for the alteration, you find no apparent change of structure, unless you look for this.

CLINICAL SURGERY.

LECTURES

DELIVERED AT THE

NORTH LONDON HOSPITAL,

BY

ROBERT LISTON, Esq.,

Surgeon to the Hospital, and Professor of Clinical Surgery in the University of London.

LECTURE IX.

SPONTANEOUS MORTIFICATION. — CASE OCCURRING IN THE UPPER EXTREMITY.

GENTLEMEN,—I propose deferring, but for a very short space, the remarks I promised to make upon some diseases of the lower limbs, for the purpose (at the request of some of you) of taking into consideration an affection of the upper extremity of rather rare occurrence. I allude to the case of that extraordinary old woman Sarah Arnold, in Ward No. 1. She has attained her 75th year, and has, latterly, even at that advanced period of life, earned her subsistence, a precarious one, it is to be supposed, by gathering and hawking water-cresses. I shall first of all read to you the account, from the hospital journal, of her state on admission, together with the reports from day to day since that period.

Case.—She was admitted on the 26th of January. She has been a person of great mental and bodily activity, and has enjoyed excellent health from her infancy, until her present illness, although necessarily exposed, from the nature of her occupation, to all varieties of weather. About six weeks ago, without being more than usually exposed to cold, she was seized with severe rigors. Two days afterwards she began to complain of slight pain, with clinching of the fingers, which at the same time became discoloured at the tips, and were partially deprived of

sensation. This at first did not give rise to much uneasiness, and no treatment was employed, and it was not until a week after the commencement of the disease, when the discoloration had passed the wrist, and the hand had become dry and shrivelled, and motion and sensation in it were completely lost, that a medical man was called in. Both internal and local remedies were then employed, but without in the least retarding the progress of the disease, which in about a fortnight from her seizure had extended a little way above the middle of the humerus, beyond which it did not pass. At present there is a well-marked line of separation between the living and the gangrenous parts, but there are two livid spots beyond it, on the outer side of the arm; on the inner side, where the disease has extended a little higher up than on the outer, suppuration has already commenced. The integuments in the immediate neighbourhood of the diseased parts are slightly reddened and tumefied, and it is there only that she complains of some slight pain. The hand and wrist are dry and shrivelled, but above this the parts are soft and flaccid. Below the line of demarcation, the extremity is of a dark colour, resembling the skin of a negro, and completely deprived of the power of motion and sensation; but she complains of a disagreeable tingling, referred to the fingers. The discoloured parts are quite cold, and the pulse cannot be felt, even in the axilla. Though she complains much of debility, the system seems to be but little affected. The appetite is *very* good; the skin is moderately warm; the pulse is 98, and of good strength; the tongue is moist and clean. She sleeps little. ℞ *Haust. c. Sol. M. Morph.* gtt. xxv. M. *Vini Rub.* ʒiv. Water-dressing to the arm at the line of separation.

27. She continues much the same as yesterday; slept little; bowels moved twice; tongue clean and moist; appetite very good; pulse as before; heat of skin natural; intellect clear; no expression of anxiety in the countenance. ℞ *Haust. Cont. Vin.* Full diet.

28. The suppuration on the inner side of the arm is more copious, and the discharge is more fetid. The livid spots on the outer side of the arm have not extended, and there is some slight redness around them. Pulse 104, of good strength; tongue clean and moist; heat of skin still natural; appetite good; bowels moved once since the last report. Continue. A little *Sol. Chlor. Calcis* to be added to the dressing.

29. The dry and shrivelled state of the extremity has extended as high as the middle of the fore-arm. The discharge is much the same as before in quantity, but is more fetid. The separation between the gangrenous and the sound parts, which had begun on the outer side of the arm when she was admitted, is extending a little, both towards the inner and the outer side. Pulse 90, of moderate strength; skin natural; tongue clean and moist; bowels open; appetite excellent.

30. Much the same as yesterday; sleeps a little better.

31. The suppuration is more copious; the discharge extremely fetid. The dead parts on the inner side of the humerus are gradually becoming more detached. No change in the appearance of the living spots beyond the line of separation; pulse 102, of pretty good strength; bowels continue regular, and the appetite is good. Cont. vinum et haust.

Feb. 1. No change.

2. The separation of the gangrenous parts on the inner side of the arm has advanced a little more since last referred to. The livid spots have disappeared, with the exception of the largest, where a small superficial slough has formed. The diseased parts were removed to-day, the line of separation being fairly established, and suppuration having taken place in a great part of its extent. The soft parts were divided by means of a pair of scissars, cutting as near to the living parts as could be done with safety; the bone was then denuded as high up as possible, by passing a bistoury round it, and it was then divided by the saw. There was no bleeding from the soft parts, and only slight oozing from the bone, which was found to be alive where it was divided. Cont. vinum et haust.

3. Continues in much the same state as yesterday; pulse 104, of good strength; tongue clean and moist; bowels moved once; skin natural; appetite good; suppuration very free. Cont.

4. No change since last report.

5. Suppuration copious; a portion of the dead parts left have separated, and left a healthy florid granulating surface. Continues much the same.

6. Discharge copious, and much less fetid; bowels regular; pulse 100, of good strength; tongue clean; appetite good; wishes for more food. To have an additional chop. Cont. alia.

7. No change.

8. The greater part of the sloughs have separated, and have left a healthy florid granulating surface; no change in the general symptoms. Continue.

9. The stump looks well, and the posterior part of the cut end of the bone is covered by healthy granulations.

In some notes of this case, kindly fur-

nished me by a gentleman who had an opportunity of watching the appearances for some time before the admission of the patient here, it is mentioned that the flow of blood in the veins was exceedingly slow, and that hard knotty tumours could be felt in the parts before they became sphacelated. These swellings all along preceded the mortification. It is mentioned, besides, that the patient had a sort of fit, but that it could not be exactly ascertained whether or not she lost consciousness. Her left arm is said to have been motionless from and after that time. There is considerable discrepancy in the accounts of the mode of invasion, and of the duration of the disease, before the line of separation became apparent. A period of six weeks is stated in our case-book to have elapsed from the attack to the admission of the patient into this hospital. It would appear, however, from the other account, that not more than three weeks had passed over. The old lady is not very distinct in her account; at one time she makes a statement with great minuteness, and very soon after contradicts herself on almost every point. When pressed on the subject, she states that she got disgusted with her condition, became despondent and careless about everything, and that her recollection is not now very good.

The case appears to me to be clearly one of chronic senile sphacelus,—spontaneous mortification. You are well aware that at any period of life, and in every texture, sphacelus or death may take place to any extent, from injury, from exposure to intense cold, and from sudden change of temperature; or from a certain degree of inflammatory action. The parts may be so injured or affected that their circulation and nervous influence are at once destroyed; or the power of the parts may be so much weakened, that the excited action which follows, even before it has assumed a violent character, is, sooner or later, productive of the same result. Mortification is thus the direct or the indirect consequence of local injury.

The traumatic gangrene and sphacelus is either acute or chronic, attended with great disturbance of the whole system, spreading rapidly, and proving fatal in a very few days, or progressing much more slowly. This variety must depend very much upon the nature and extent of the injury, upon the state of the constitution, and the time of life of the individual. At an advanced age the circulation becomes languid, and alterations take place in the bloodvessels, in veins as well as in arteries, which predispose to mortification; the limbs waste and become shrivelled, more especially the lower members, from deficient nourishmeat, and their power of resisting the effects of injury or disease is materially weakened. We accordingly find lesions of the soft parts, and fractures and displacements, otherwise not of a serious nature, followed by spreading gangrene and sphacelus. You have in the wax model of this lower extremity a good example of such an occurrence. The patient was far advanced in life; the injury was not apparently severe; the tibia was broken, but the opening in the integuments leading to the fracture was inconsiderable, and with very slight bruising. The treatment was carefully conducted, yet gangrene very soon manifested itself. It was plain, from the age of the patient, and the rigid state of the vessels, which could be easily ascertained, that there must have been a strong predisposition to mortification, and that the removal of the limb during the progress of the disease (which, under other circumstances, would have been advisable, and might probably have proved advantageous) would here have only hastened the fatal termination.

But upon much less severe injuries than this has mortification of the lower extremities supervened. In a limb, the powers of which, from the state of the circulation, are weakened, very slight excited action is likely to be followed by mortification. The term "inflammatio debilis," which I do not mean to defend, has been employed to denote this degree of action.

Spontaneous mortification, the "dry gangrene," occasionally is met with in young subjects, and is attributable to scanty and bad nourishment. It is met with occasionally after eruptive fevers, and I have seen cases in which no cause whatever could be discovered. This limb, separated at the knee-joint, was removed by amputation of the thigh, from a young man, after the line was well indicated, by my friend, Dr. PAUL, of Elgin. The patient was aged about 20, and the attack came on during measles.

In the great majority of cases, however, in old people, no immediate or exciting cause can well be assigned. The progress of the affection is in some instances very rapid, and accompanied by great pain; in others it is slow; it spreads very gradually from toe to toe, and is long in involving any considerable part of the foot. I speak of the lower extremity as attacked, because the spontaneous form of the disease, the "dry gangrene," is there of much more frequent occurrence than in the upper, and for reasons which I shall immediately explain to you. In the more acute or rapid forms of the disease, to a certain extent inflammatory action, at-

tended by a burning sensation often intense, swelling, vesication, detachment of the cuticle, and dark redness, precedes the death of parts. A band of this kind, of different hues, is visible at the margin of the sphacelated part one day, and on the next it has passed into the same condition,—is added to it.

There is often pain experienced in the course of the vessels; in some cases great tenderness on pressure. In all these cases considerable excitement of the circulation is present. The patient is restless and feverish, has great thirst, a parched, raw, or furred tongue, complains of headach, and not unfrequently is slightly delirious.

In the slow form the parts shrink, become pale and cold, are deprived of sensation, and all without the patient experiencing, in the first instance at least, much uneasiness.

We must look, now, to that state of the vessels which seems to precede that form of mortification which takes place spontaneously, or from a very slight exciting cause.

It is well known to all of you, that after a certain period of life decay begins to take place in various systems, and in many individuals, — more especially in those whose circulation has often been hurried or excited by hard living, violent emotions, and so on; the bloodvessels begin to undergo certain alterations, the larger trunks have their calibers increased, but they, at the same time, become less pliant and limber, and do not accommodate themselves so readily to the contained fluid; their coats are more rigid, and they begin to degenerate; a lardy and steatomatous deposite takes place betwixt the inner and the middle coat, and this, often, is changed, farther, into earthy matter. Such an effect is found to take place at different periods of life, to a greater or less degree. There are specimens and drawings before you, exhibiting this state of vessels in all stages. You have, in some, the thin, yellow-looking films, shining through the internal coat. You see, in others, plates of bone, if you may so call them, making their way by ulceration through that membrane; and, again, there are some vessels, rigid earthy tubes, bearing no sort of resemblance to the original tissue. This condition is seen to extend, in some of the specimens, even to the smaller branches. In those of advanced years, the veins are often dilated to such an extent, that the valves no longer fill the canal, or give support to the column of blood; hence enlargement of, and stagnation in, the smaller ramifications and effusions into the cellular tissue. But these changes in the vessels are met with comparatively seldom in the upper extremity.

Now it does not follow as a necessary consequence, that however much the circulating apparatus may be deranged in structure, mortification should ensue. The flow of blood goes on through these earthy canals, but with less vigour than usual, and it is apt to be stopped entirely. An individual with vessels in the condition spoken of, is more likely to be the subject of mortification of the extremities than one whose vessels are elastic and sound.

In examining the bodies of those who have been the subjects of this disease, we find the coats of the vessels generally more or less diseased, and, in a great many, a complete obliteration has taken place in some part of the tube. This closure, partial or entire, may arise from the laceration of the inner coats, and corrugation of them. It may be the result of coagulation, the fibrinous clot being detained and supported by some irregular diseased portion of the inner coat, or the deposite may be the result of inflammatory action of the coats. Arteritis was considered by the late illustrious Baron Dupuytren, as the immediate and uniform cause of chronic gangrene. It is much to be regretted, however, that many of the statements attributed to him must be received with very great allowance.

The rapidity and extent of the mortification will depend on the degree and place of obstruction, and, in a great measure, also, upon the state of the anastomosing branches. You can readily understand how, from a sudden and total closure of the vessel, high in the limb, the circulation should be entirely cut off from the extreme parts, how these should shrivel up and dry, without previous swelling; and, again, how, as the mischief advances upwards, there should be some signs of vital action, some resistance offered to the invasion, and, at last, some attempts made to throw off the useless part.

In our patient the obstruction probably exists in the axillary portion of the humeral. No pulsation is to be felt in that region. The vessels lower down, so far as can be ascertained, were remarkably sound.

When the mortification has reached a point at which the circulation is going on in a tolerably active manner, lower considerably in all probability than the obstructed portion of the trunk, there a more healthy action is established. The integument assumes a brighter red hue. The same action pervades the deeper parts; lymph is effused into the cellular tissue, and, forthwith, an ulcerative process is set

up for the detachment of the dead part from the living.

In many cases the obstruction is seated so high, that long before a chance has existed of such a favourable change, the patient sinks under his sufferings. I witnessed, some time since, a sudden stoppage of the circulation in both lower extremities, followed by gangrene. This extended pretty rapidly to both groins. The internal coats of the abdominal aorta were found lacerated, and the vessel was obstructed at that point.

But we find that obstruction to the return of the blood leads equally to the death of parts, and a little consideration will convince you that this is not an improbable result. In the majority of cases of strangulated hernia, the obstruction is not sufficient to stop the arterial flow; nor is the natural stricture upon the glans penis in the state of paraphymosis. We see mortification follow, equally, badly-conducted operations for the removal of tumours by ligature, the return of blood being only interfered with, though more slowly, and with much unnecessary suffering, than when the arterial flow is at once arrested. The two feet now presented to your notice, the one separated in the middle, and the other at the ankle-joint, and a portion of the femoral artery and accompanying vein contained in this jar, belonged to the same individual. The coats of the vein and of the saphena, as it joins, are much thickened, and the cavity is blocked up by adherent and organized lymph. The veins had been in a varicose state. They were inflamed throughout, and many abscesses were formed in their course, and connected with them. The arteries were remarkably sound, bore no marks of inflammation, and were in no way obstructed in their course.

I have stated that spontaneous mortification is seldom met with in the upper extremity. All the actions are carried on with more vigour in the upper parts of the body, as we see every day in the healing of wounds and injuries, and, besides, the degeneration of the vessels there is uncommon. You will seldom see so many specimens as amongst those to which I have already referred. Accordingly, recorded cases are not numerous. QUESNAY, KIRKLAND, THOMSON, DUPUYTREN, each mentions one case. There is a good case in the *Edinburgh Medical Journal* for 1813. I have seen a few sphacelated hands and fingers in museums,—and I have heard of a few cases. The following remarkable one, not altogether spontaneous certainly, was communicated by my friend Mr. WILSON, of Kingsland Road:—A girl, æt. 23, very robust, and fond of brandy, after lying all night with a young man, found, on awaking in the morning, that her arm was benumbed. She could not lace her stays. She supposed that her companion had lain upon it. The day after, the arm was cold, shrunk, and insensible, and began to change colour. It was affected with dry gangrene. A line of separation formed below the elbow. The parts were removed, and the patient recovered.

As regards the *treatment*, this must be modified according to existing circumstances; the cause is often hidden. The place of obstruction, if it exist, is unknown, and even if it were known, we have not the means of removing it. During the extension of the gangrene, our efforts must be directed to allay the feverish excitement of the constitution. This is to be effected by regulation of the diet, by attention to the bowels, and by the combination of diaphoretics and opiates. The abstraction of blood to any extent cannot be ventured upon with propriety in old subjects. The disease may be cut short, but with it—the patient.

Looking upon this as a disease of debility and putridity, stimulants, tonics, and antiseptics, are given by some practitioners. These medicines, however, aggravate many of the constitutional symptoms, increase the headach, restlessness, and thirst, and hasten on the local mischief. Our object must be, during the spreading of the disease, to keep under and moderate the fever by such means as will not sink the powers of the constitution, as will not interfere with nature's efforts,—to support the strength when the symptoms of excitement have passed away, when the disease has stopped, and the line of separation is forming. Nothing is to be looked for from local remedies. The parts which are sphacelated cannot again be restored to the system; their sensibility cannot again be roused by any means. The stimulating applications, therefore, that are made in such cases, the tinctures, and spirits, and hot dressings, can act only on the parts still possessed in some degree of vitality, and their action on those parts, instead of being beneficial, is altogether the reverse. The making of deep incisions can answer no purpose in such cases as we are considering, however proper they may be in those of high inflammatory action with infiltration, in which mortification is threatened,—a practice strongly recommended by LEDRAN, FREKE, and others, and the advantages of which are now generally appreciated.

In the case which has given occasion to these remarks, the line of separation, as you are aware, had commenced before the patient's admission. The completion of this

natural process was watched, and with the concurrence of my colleagues Messrs. Cooper and Quain, the amputation was set about as detailed in the journal, and completed without pain or loss of blood, Some of you, I am disposed to think, were rather disappointed that a more regular operation was not resorted to,—that there were no extensive incisions and bleeding vessels to deal with; you perhaps thought with Fabricius Heldanus, "Operationes chirurgicæ cum ornatu et splendore fieri debent." Our object was to save the life of the old woman, in whose welfare I am sure you have all taken a deep interest along with me. I think you are now satisfied that the means, however deficient they might be in parade or splendour, were the most likely to forward our object. It is a practice, as Quesnay remarks, which is the most sure, endangers less the character of the surgeon, and at the same time is the least disagreeable to the patient.

Celsus advises amputation at the line of separation, but his opinion is in favour of encroaching rather upon the living parts than the dead. In this recommendation he is followed by Ambrose Pare and others. Joannes de Vigo and Fabricius ab Aquapendente advise, however, cutting in the dead part, and praise the proceeding very highly; as does Kirkland, who was satisfied, as we were, to forego the *eclat* of what is called a capital operation, in order more effectually to bring about a favourable termination. An opposite practice has been, and, I believe, is even yet, now and then followed. Those patients in whom I have seen amputation performed for spontaneous gangrene in the living parts, have died very soon after, and this is likely to be the general result. No one will surely now be found so very foolish as to think of interfering in these cases until the line of separation is formed, it being impossible to say till then, how far the parts are doomed to perish. But even after the line has shown itself, it is certainly bad surgery to step in and interfere with nature in her salutary operations. In young subjects, in whom, from pressure or cold, part of an extremity has perished, it is a justifiable and proper practice, with a view of affording a more comfortable stump to amputate in the sound parts after the line has formed. But in such patients as Mrs. Arnold, a regular amputation would almost certainly prove fatal, and that within no long time. From hemorrhage no great apprehension need be entertained. In similar cases the vessels have been found plugged up, and requiring no ligature. But the loss of even a small quantity of blood, and the shock of the operation, independently of the risk of a fresh attack of gangrene of the stump, are to be looked to as likely to produce a speedily fatal result. So far as I can see, we have been fully borne out by the result of this case. The patient has been moving about the ward for the last eight or ten days. She is in good spirits, and is rapidly gaining strength. The stump is as good as need be desired, the bone well covered. This was arranged readily, in consequence of the favourable direction of the line of demarcation. The bone seems to be alive, excepting only a very small part of the edge: it cut like a living bone. But had it been dead, and had it not been possible to saw it so favourably, we might with confidence have looked to nature for assistance; the bone would have been separated, certainly, sooner or later, to such an extent as to admit of its protection by the soft parts.

In the traumatic gangrene, as you must be aware, and in those not advanced in life, a very different line of proceeding must be followed out. The free and timeous abstraction of blood is resorted to with the effect, in many cases, of preventing or putting a stop to the disease. After a limb is involved, no delay is admissible; no expectation of a line of separation forming need be entertained. The amputation of the member in a place where it is quite sound and unaffected, affords the only safety to the patient; and for settling the practice in this matter, the profession is under a deep debt to Baron Larrey.

NEW INSTRUMENT, BY M. SAVERIO DE FEO, FOR COMPLETING THE SECTION OF THE CORNEA IN CATARACT.

This instrument consists in a small semicircle of iron, whose diameter equals that of the transparent cornea; along the convex edge is placed a small groove to receive the point of a straight bistoury; and the extremity of the semicircle terminates in a vertical handle. During the operation, the surgeon employs as usual the cataract-knife, with which he makes a small incision on the outer edge of the cornea; this done, he passes the free extremity of the instrument in iron through the incision, and directs it through the anterior chamber, between the iris and back of the cornea; the semicircle being thus fixed in a convenient position, the point of the bistoury is engaged in its groove, and the section of the cornea at its inferior segment completed. According to the inventor, this instrument enables us to avoid any lesion of the iris, the transverse section of the cornea, the discharge of the humours of the eye, &c. &c. —*Il Filiatre Sebezio.*

CLINICAL MEDICINE.

LECTURES

DELIVERED AT THE

NORTH LONDON HOSPITAL,

BY

A. T. THOMSON, M.D.,

Physician to the Hospital, and Professor of Materia Medica in the University of London.

LECTURE XII.

(Concluded from page 801.)

INFLUENZA.—*Modification of the Disease in the form of Tonsillitis.**

THE case which illustrates the second form (*tonsillitis*) of the prevailing epidemic has occurred in the man named Robert Best, twenty-six years of age, a footman. He complained for several days, before he entered the hospital, of great lassitude, a feeling of uneasiness, as if he had been cudgelled all over his body, and irregular chills and heats. On the day previous to his admission, the tonsils became painful, and were greatly swelled and inflamed, the redness being more than usually dark, and the sense of suffocation frequent and extremely distressing. He was cupped on the nape of the neck, and freely purged, which afforded him some relief. On his admission on the 19th of February, he complained of severe sore throat and a swelling of the neck, under the angle of the right side of the lower jaw, with difficulty of deglutition, headach, and pain at the epigastrium. His respiration was natural; he had no cough nor pain on taking a full inspiration; his pulse was 84 and hard; his mouth dry, the tongue slightly furred, and the saliva natural. He had no appetite; he complained of great thirst; the bowels were open, and the urine was scanty, but not high-coloured. His skin was dry. The mind was entire. Fourteen leeches were applied over the tumour of the neck, after which he was ordered to take a pill containing gr. j of calomel and gr. iv of James's powder every third hour, and to wash down each pill with f. ʒij of the following mixture:—

℞ *Ammoniæ Liquoris Acetatis* f. ʒiij;
Aquæ Distillatæ f. ʒv. M.

Feb. 20. The bowels have been freely opened, and he feels generally better. A large ulcer has appeared on the left tonsil. Let him gargle with an infusion of roses, acidulated with sulphuric acid, and containing ℥xv of tincture of capsicum to each ounce of the infusion of roses, and continue his pills and mixture. Half diet.

23. The swelling is nearly gone, and the ulceration of the tonsils has disappeared. In every other respect he is greatly improved. Continue his medicine and gargles.

25. Convalescent.

I have scarcely any comment to make on this form of the epidemic, many cases of which I have seen in private practice. The symptoms in the commencement are very threatening, but they have in almost every instance rapidly yielded to topical bleeding, followed by calomel and James's powder. Although the swelling of the tonsils is great, and extends to the palate and uvula, and the inflammation is of the deepest red colour, the pulse hard, the face flushed, and the skin dry and hot, yet I have observed no tendency to a termination in suppuration or abscess; on the contrary, the ulcers, when they appear, are superficial and spreading. The tonsils, almost always, rapidly recover their natural size and appearance, after one or two local bleedings, and in cases that have been thus treated, the subsequent debility has been trivial; but when topical bleeding has been omitted, the weakness has been almost as great as after the bronchitic form of the disease. The best gargle, in the commencement of the attack, is a solution of a scruple of acetate of lead in seven fluid ounces of distilled water, and one fluid ounce of distilled vinegar. Upon the whole it is both a milder and more manageable variety of this epidemic than the bronchitic form.

The opinion which I have ventured to advance, namely, that both these forms of disease are the consequence of the same epidemic state of the atmosphere, is confirmed by the manner in which the disease frequently passes through families. We find, among the adults, both forms of the disease: but the adult males, in general, are the subjects of the tonsillar, the females are those of the pulmonary attack, whilst the younger children of both sexes almost invariably suffer from the bronchitic affection. It is not improbable that similar modifications may prevail in other epidemics, although they have escaped observation.

SYMPTOMATIC ASCITES, *successfully treated.*—One of the earliest cases received into the Hospital, that of ascites in the

* The following remarks form the conclusion of that part of Dr. Thomson's Lecture (a portion of which appeared in THE LANCET of last week) in which he treated of the prevailing epidemic.

man of the name of Kendrick, has been discharged cured since our last meeting. In my former remarks on this case (vide page 446), I mentioned my inability to ascertain the habits of the individual; and that I could only conjecture, from the symptoms, that the dropsy depended upon some hepatic affection connected with the abuse of spirituous liquors. There were, however, circumstances in the progress of the case that threw doubts upon this opinion: thus the swelling of the abdomen, which was very considerable when the patient entered the hospital, was not preceded by œdema of the ankles; nor were these much swelled at the time of his admission. There was, also, none of that emaciation which always more or less accompanies symptomatic or consequential ascites. You will recollect, that on account of this degree of obscurity in the history of the case, my prognosis was a doubtful one; and that I stated, also, my opinion, that should the effused fluid be entirely removed by the active measures which were adopted, namely, the combined action of calomel and elaterium, it might return very rapidly, and the disease even prove fatal. The strength of the patient, at that time, was fully equal to the powerful influence of these remedies on the habit, and the specific effects of the mercurial, instead of being interrupted by the hydragogue influence of the elaterium, which produced from six to ten and twelve fluid stools daily, were favoured by it; the most decidedly salutary change was effected on all the secreting organs; the effused fluid was gradually taken up, and except that the patient was suffering from the effects of a mercurial sore throat and great debility, there was every reason for regarding the case as rapidly advancing to a favourable termination. Under these circumstances all medicines were for a time intermitted; and the strength of the patient was kept up by mild nutritious diet. For ten or twelve days no augmentation of the size of the abdomen again displayed itself; and, although some traces of effused fluid could still be detected in the serous cavity, yet it was trifling; and, it was hoped that it would gradually be removed by the returning powers of the habit. These expectations, however, proved fallacious; the abdomen again rapidly filled and regained its tension, and a question arose as to the propriety of once more having recourse to paracentesis for its removal. The patient objected strongly to the operation; and it was, therefore, deferred. A large blister was applied over the greater part of the abdominal region; and, as soon as it was taken off, a course of elaterium without mercury was commenced; and the decoction of Polygala *Seneya*, in combination with ammonia and camphor, was administered three times a day, in full doses. Under this plan of treatment the most decided advantage has resulted; the effused fluid rapidly disappeared, whilst the strength of the habit gradually improved; and, on the departure of the patient from the hospital, not the least vestige of ascites remained.

Now, Gentlemen, if my opinion be correct respecting the nature of the dropsical effusion, in this case, it would be instructive and important to point out to you the primary seat of disease; and to determine the extent to which any organic affections are likely to proceed, before they can terminate in irremediable ascites. In this instance, there was, evidently, no affection of the chest, either acute or chronic: it was, therefore, necessary to look for the primary affection in some of the abdominal viscera; and the first that presents itself to our notice is the liver. When dropsy supervenes upon diseases of that organ, the form which it assumes is, generally, that of ascites. It is nevertheless necessary for me to remark here, that ascites is a rare termination of acute hepatitis; the abscess which forms in that form of hepatic disease bursts either into the serous cavity, or establishes a communication between the cyst and some portion of the digestive canal, or it may form one with the pleura. In all of these cases the termination may prove fatal; but it rarely indeed occurs that dropsy is the consequence of acute hepatic inflammation.

It most commonly happens that the hepatic disease has been of long continuance, and nothing is more difficult than to determine the nature of it; the symptoms are often so obscure as to resemble those of simple functional dyspepsia, consisting of flatulence, slight pain of the right hypochondrium, and occasionally a dry cough, occurring most particularly in the morning. The urine is always more or less high-coloured, scanty, and deposites a pink-coloured sediment; the stools are frequently, but certainly not invariably, pale or clay-coloured; and jaundice also is occasionally but not always present. In Kendrick's case there was cough; but he displayed no jaundiced aspect, nor did he complain either of pains in the hypochondrium, or in the shoulder, or in the deltoid region of the humerus. There were no obvious symptoms of induration of the liver, nor of hypertrophy; and, has been already stated, there was assuredly nothing like atrophy. There were, nevertheless, some symptoms indicative of

diseased liver. The countenance was sallow; the tongue foul; the urine scanty; the pink deposite present; and the skin harsh and dry. The absence of all œdema is uncommon; but instances have occurred in which scarcely any was present. On the admission of the patient, there was much dyspnœa, but this was easily accounted for by the extreme tension of the abdomen, and the consequent protrusion of the diaphragm into the thorax. Notwithstanding, therefore, the absence of some of the leading characteristics of hepatic disease, as the symptoms did not lead us to infer the presence of disease in any other of the viscera of the abdomen, we were still forced to recur to disease of the liver as the primary affection; and the confession of the patient, respecting the irregularity of his habits of life previous to his leaving the hospital, tends to confirm the accuracy of such an opinion; and to demonstrate the extreme difficulty in tracing the causes of ascites connected with chronic hepatitis, although it is a disease of common occurrence. In this instance, besides, there was no enlargement of the spleen; and with respect to the kidney, if coagulable urine is to be regarded as a criterion of disease there, it did not exist, except in the slightest degree, in the urine of this patient. There was, also, little or no anasarca; and, although the habit was readily brought under the influence of calomel, yet the calomel was not so energetic and rapid in producing its constitutional effects, as we are led to suppose is always the case in dropsy supervened upon disease of the kidneys.

It is a prevailing opinion that there scarcely is a possibility of inducing ptyalism in hepatitis even of a chronic character; but although this holds true in a great measure when inflammation is present, yet it is not difficult after this is subdued by depleting measures; and, in the present instance, nothing was more likely to subdue the inflammatory state of the organ, than the counter-irritant influence of the elaterium; and it was not until this had displayed its full effects for more than a week that the ptyalism began to show itself. We are advised, in medical works, to defer the employment of mercurials in chronic hepatitis, until local bleeding, and blistering, or other counter-irritants have failed; but when effusion has taken place, it indicates that the inflammation is already nearly, if not wholly, at an end; and, therefore, no delay of this kind is required. But to return from this digression, there is certainly much difficulty in determining whether the kidney or the liver be most in fault in ascites. The slight coagulation of the urine ought not to be regarded as of much weight in the absence of other symptoms. Indeed I have known instances in which this has displayed itself; and the post-mortem examination of the body has demonstrated no change whatsoever in the structure of the kidneys. The coagulable state of the urine, however, leads to this practical inference; it inculcates the necessity for further blood-letting, or some other means of active depletion. The best method of detecting this state of the urine is, undoubtedly, the use of the bichloride of mercury; but it is also advisable to confirm the effects of this test by the agency of heat. Taking it for granted, therefore, that the liver was the organ previously in fault, which was certainly the impression on my mind in the present instance, let us inquire into the principles on which the salutary influence of the treatment can be explained.

The specific influence of mercurials, if such a term be admissible in ascites, connected with diseases of the liver, has been long and generally observed. They should be pushed to salivation, and this should be kept up for a considerable time. Often the combination of diuretics with mercury, however, is such as rather to retard than forward its influence. As, for example, when they are direct stimulants, such as oil of turpentine or of juniper; the excitement, which they induce on the kidneys, operates as a contra-stimulant to the other secreting organs, and thus lessens in a striking manner the specific influence of the mercurial on those. It more commonly occurs, however, that they are often administered on erroneous principles. Thus foxglove, which is properly conjoined with mercury, has been regarded as operating as a sedative, whereas its primary influence is decidedly stimulant; and it is to its property in this respect, aiding that of the calomel, on the capillary system, that we must ascribe any benefit which results from its administration. I did not prescribe it in the case under consideration, because I felt convinced that some excitement still existed, and that we should obtain more ample and lasting benefit from purgatives, especially the elaterium, on account of the counter-irritant influence which, in reference both to the liver and the kidneys, it exerts upon the gastro-intestinal surface; indeed, it is to this influence that I am disposed to ascribe all the benefit which has been obtained from its employment, for, by removing congestion from the diseased organ, it places the liver more directly within the sphere of the mercurial action than would otherwise be the case.

It is the usual opinion that ascites, accompanied by or depending upon hepatic

disease, yields more rapidly to diuretics than to purgatives, but my experience is at variance with this remark. There can be one opinion only respecting the necessity for the administration of tonics in ascites after the excitement has been subdued and the fluid removed. The debility consequent upon the employment of either diuretic or purgative medicines to the extent required in ascites, places the patient in a new situation, and renders him susceptible, as in the instance before us, to a return of the effusion. But the disease in such a case assumes the asthenic character, and instead of depletion the strength must then be maintained. It may be asked, why, if this was my view of Kendrick's case, when the abdomen began again to distend the elaterium was again resorted to? I reply that it was still requisite to stimulate the intestinal exhalents, in order to arrest the farther effusion of fluid into the serous cavity, before the absorbents could be expected to carry off that which had already again accumulated, and was overpowering them; but, by maintaining the tone of the habit, at the same time, the influence of the elaterium was changed from that of a powerful evacuant to that of a simple counter-irritant. The preparations of iron, and those of cinchona bark, are most depended upon in such cases; the only precaution requisite is to ascertain satisfactorily that no tendency to inflammation remains. The hydriodate of iron was given, and produced little benefit; it was, therefore, discontinued, and the Polygala *Senega* with ammonia was ordered, and answered every indication. The salutary influence of this mode of treating ascites has been so strikingly illustrated in Kendrick's case, as to require no further comment; it is, in fact, that mode of completing the cure which is always most likely to secure the patient from a relapse.

CASE OF ENORMOUS

POPLITEAL ANEURYSM,

CURED BY LIGATURE OF THE FEMORAL ARTERY.

By GERARD P. BARRY, *Esq.*, *M.R.C.S.L., Kanturk.*

WILLIAM NASON, æt. 44, a shoemaker, several years ago laboured under ophthalmia, which terminated in suppuration of both organs of vision, since which his spirits have been much dejected. Having had recourse to mendicancy for subsistence, having assumed the sitting position in the pursuit of both avocations for a series of years, he acquired a predisposition to popliteal aneurysm. He is of a tall and spare habit of body, and emaciated; his attention was directed to a small, painful, and pulsating tumour in the ham, two years since; for its appearance he could assign no cause; its development was exceedingly slow till within the last six months, when it rapidly increased. Has had no advice till March, when he exposed the tumour, which had assumed the magnitude of a hen's egg. On ascertaining its nature I proposed an immediate operation, to which he declined submitting till he consulted his friends, who dissuaded him from an operation.

I lost sight of him till the 26th of November, when I was requested to visit him at his lodgings, where he lay on a little straw in excruciating agony. On taking a front view of the joint it was much enlarged on either side; all the popliteal space was occupied as low down as the fleshy part of the gastrocnemii, and the aneurysm ascended three inches between the hamstring muscles; its circumference, including the patella, measured twenty inches and a half, while the girth of the opposite joint was thirteen and a half. The tumour had attained the size of a large goose's egg, and was of a conical shape; the integuments were much attenuated, and of a florid colour, owing to the application of hot poultices; it pulsated violently, and simultaneously with the heart, paroxysms of pain recurring at intervals, particularly at night, shooting in the course of the nerves, especially in the ankles and toes, and a sense of numbness experienced, was occasionally teasing. The superficial veins of the leg were much congested and tortuous, and the limb was swollen to thrice the size of its fellow, and he suffered much from sleepless nights caused by the pressure of the aneurysm on the contiguous nerves. General health good, no cough nor acceleration of the respiration or circulation.

On the 27th, assisted by Surgeon Tivy, I cut down on and ligatured the femoral artery in the upper third of the thigh; the aneurysmal pulsation instantaneously ceased; one end of the silk was cut close to the artery; the lips of the wound were approximated by adhesive straps, and a compress and roller applied to keep the lips of the wound in contact, he being very fidgetty. The limb was enveloped in flannel, and its temperature kept up by bottles filled with warm water, and occasional friction.

28. Complains less of pain in the wound than in the ham and toes; restless night.

29. Skin warm; no pain of head, thirst, or rigors; took an anodyne pill h. s.; slept; bowels open by medicine. No unfavourable symptom occurred till the 2nd of December, when he was attacked with hæmaturia to the extent of ʒviij. The urine contained some coagula; no pain of kidneys or abdomen; there was no nausea; pulse rather full, 100. V.S. ad ʒxij; blood did not coagulate; a smart aperient was administered. There was no further sanguineous discharge till the 4th, when he voided some grumous blood from the intestines preceded by tenesmus. A draught of ol. ricini relieved the symptoms. He experiences much pain in the toes and joint, the latter of which is diminished by three inches in its circumference; an anodyne liniment is applied.

Dec. 12. The strappings have been entirely removed, the upper and lower part of the wound having healed by the first intention; about an inch in the middle is suppurating freely, owing to the irritation of the ligature; the serous infiltration in the lower part of the limb has been entirely absorbed, and it is now reduced to the size of the sound one. He continued to improve till the sixtieth day, when I used some force to extract the ligature, he being desirous of returning to his friends, and not wishing to leave till the wound was healed. He has now so far recovered the use of his limb as to be enabled to pursue his former profession.

Kanturk, 20th February, 1835.

INCOMPLETE RESECTION OF THE ULNA,

AS A SUBSTITUTE FOR AMPUTATION OF THE FORE-ARM.

The history of surgery affords several examples of incomplete resection of the ulna. One of the earliest operations was performed by Gorcke in 1793, who removed four inches of the bone: the elder Moreau removed a portion of the ulna twice in 1794, and twice in 1797. Since then a similar operation has been performed by Roux, Crampton, Percy, Delpech, and several other French surgeons. In Germany partial resection has been successfully had recourse to by Withusen, Warmuth, and Holscher, but we know of no case in which such an extent of bone has been removed as in the one by M. Malagodi, about to be noticed. G. Barberini, twenty years of age, received a stroke of a stick on the middle of the left fore-arm; the accident was followed by pain, tumefaction, &c., and six months afterwards a tumour, extending nearly the whole length of the ulna, was developed under the integuments, and soon acquired an immense magnitude. On his entry into the hospital of *St. Croce*, the fore-arm was double its natural size: the soft parts covering the tumour were traversed with fistulous excavations, and the whole ulna, within two inches of the olecranon, was manifestly converted into an osteo-sarcomatous tumour. According to the rules generally laid down, disease to this extent would have warranted immediate amputation of the arm; but Dr. Malagodi, influenced by various considerations, which it is unnecessary for us to repeat here, determined on resection of the diseased bone, by disarticulating it at the wrist-joint, and sawing through the head an inch below the olecranon. The patient was accordingly prepared by a few days of rest, diet, the use of a purgative, bleeding, &c., and on the 20th of June, 1834, the surgeon proceeded to operate in the following manner:—

The arm being intrusted to two assistants, a tourniquet was placed over the humoral artery; a curved incision was now carried from the styloid process of the ulna as high up as the elbow-joint; a similar concave incision to the same extent joined the two extremities of the former, and thus circumscribed the altered integuments; these latter being dissected off from the superior extremity of the wound, the muscles and aponeuroses were removed from the bone with a curved knife; the operator had now arrived at the interosseous space, and recognised with pleasure that the radius was not comprised in the disease; he therefore directed the knife towards the articulation of the wrist, and opened the joint from the outer side, dividing the tendon of the extensor carpi, which he was unable to avoid; the whole of the diseased mass of bone was now isolated up to the elbow-joint, where sufficient of the ulna remained sound to permit its resection about an inch below the olecranon; three arteries were tied, and the wound was at once united; the dressings were not removed until the fifth day, when a great part of the wound was healed.

After this period the case went on favourably, and cicatrization was completed on the thirty-fifth day: the patient even then was able to flex all his fingers, and enclose a body in the hand with some force. Two months after this M. Malagodi saw the patient, who assured him he was able to resume his ordinary labour, and execute any work.—*Bullet. of Med. Scien. of Bologne.*

EXTRA-UTERINE PREGNANCY.

USE OF THE SECALE CORNUTUM;

CHILD EXPELLED BY THE RECTUM.

By Professor PETRUNTI.

THERESE MANAER, thirty-six years of age, mother of six children, had, besides a suppression of the menses, every other symptom of her former pregnancies; in addition to these she had violent pain in the abdomen, and was much agitated; the belly was tumid and painful. The physicians were unable to agree upon a diagnosis, from the uncertainty of the symptoms. Three months after the first suppression of the menses, the abdominal pains came on with increased intensity, and the patient, who was affected with constant fever, became very thin. A small hard tumour was now noticed above the pubis: it was circumscribed, inclined to the right, and gradually enlarged. This was taken at first for a tumour of the ovary, but after some time the movements felt left no doubt of the existence of pregnancy. The mammæ were much developed, and furnished serum. The patient was affected with a constipation so obstinate, that no purgative medicine could overcome it; the transverse colon was evidently full of fecal matter; the whole abdomen was painful, and the patient constantly delirious. In spite of the circumstances just noticed, some physicians denied the existence of pregnancy, and supposing the uterus was filled with a quantity of clotted blood, prescribed the ergot of rye; this medicine only augmented the patient's sufferings, and brought away a little liquid blood from the uterus. The tumour now disappeared into the pelvis; the motions ceased to be felt; and the constipation became still more rebellious. The patient had a consciousness that her rectum was obliterated, and was constantly tormented by efforts to go to stool. She passed the seventh month in this miserable state, expecting to die every moment. One day the tenesmus was so violent, that she was forced to introduce a finger into the rectum as high as she could; the finger struck against a hard body. After a second introduction, she had the courage to extract the foreign body, which was the lower jaw-bone of a fœtus several months old. Some very fetid matter now came away, and M. PETRUNTI on the following day succeeded in extracting various bones of the skull, and the whole vertebral column, with a polypus forceps. The operation was repeated, until all the parts of the fœtus were removed; the patient gradually recovered strength, and in a fortnight was restored to her family. Four months have elapsed since the expulsion of the fœtus, and she now enjoys perfect health.—*Il Fil. Sebezio*, Decem. 1834.

REMARKS ON THE

CONTAGIOUS RING-WORM OF THE SCALP.

To the Editor of THE LANCET.

SIR,—The public attention having been so much directed, through your pages and those of the non-medical press, to the contagious ring-worm of the scalp, it appears to me that I may not inappropriately subscribe some useful information on the subject in the shape of a few brief extracts from my forthcoming work on diseases of the skin. I am further persuaded so to do, from the more than usual prevalence of that disease among the children of all classes of society at the present period, and I trust you will find room for their insertion on the score of public utility, if you consider them calculated to promote that end.

The columns of THE LANCET are too usefully employed, at all times, to tolerate lengthy dissertations which do not tend to effect a public good. With a due consideration, therefore, of the utility of my remarks, and the value of your space, I shall endeavour to make what I have to say as short as possible. I am, Sir, your very obedient servant,

SAMUEL PLUMBE.

14, Southampton-street, March 9, 1835.

The ring-worm, "that very unmanageable form of porrigo," has been described with much circumlocution by differen authors, and in some of their descriptions the features which it is said to exhibit never belonged to that disease, unless they have been tortured into a change of character by stimulant and caustic applications.

The contagious ring-worm, as seen on parts of the body which are not covered by hair, is exceedingly simple in its nature, and easily removeable by the application of a slight stimulant or astringent. Thus, schoolboys easily rid themselves of it by the application of ink or alum. Not so, however, on the scalp. On the skin of other parts, it seldom arrives at the size of a silver penny piece, while it is often not noticed on the scalp before it has ar-

rived (generally in a circular form) at the dimensions of a shilling, the attention being attracted to it by the falling off of the hair of the part. The circular spot, however, is not found to be bald, in the usual acceptation of that term, but it is imperfectly covered by stunted and shrivelled hair, very much resembling, as French authors have noticed, rotten tow. Over the whole area you discover no healthy hair, and if you pull the whole of that substance out by the roots, the child experiences no pain or discomfort. Separating the whole of this imperfectly-formed hair with the finger and thumb from the scalp, and laying it on a piece of paper, you find no bulb or tapering point, the eighth part of an inch being generally the utmost length of the stumps. Some withering power has evidently been operating against the nourishment of the hair, and the latter breaks off near to the skin, leaving its bulbless stumps sticking in the part.

Having cleared the spot from the withered stumps of hair, the surface is usually found to be a little elevated and rough. If you examine it with a lens, you can very often see a few minute vesicles or pustules about the margin, but the parietes of ruptured vesicles, formed of the ruptured cuticle, occupies the centre of every patch, and a vesicle or pustule is rarely seen, except at or near the margin. Leaving the disease to take its course uninterruptedly, the area becomes gradually enlarged, but in the course of time healthy hair appears in the centre, the original point of attack, and the healthy formation of hair at this point will take place while the ring of devastation of the hair continues to enlarge until it involves several inches of the scalp.

This is the history of a single spot; but before the period at which anything like the appearance of new hair in the centre takes place, others, more or less numerous, show themselves at distant or contiguous parts of the scalp, each enlarging until their boundaries approach to and unite with each other, and a large portion of the scalp is denuded of healthy hair.

The disease is described as of a vesico-pustular character, and such it undoubtedly is. On the skin *not covered by hair*, a small ring of very minute vesicles appears, the contents of which soon dry up, and a small areola of scab is formed, which soon drops off. On the hairy scalp, the same circumstance occurring, there is much irritation and itching; the child scratches it and inoculates other parts; hence the tediousness of operation of all measures which do not include the destruction of the means of new inoculation or new infection. There are vesicles and pustules formed amongst the hair, just as on the skin of other parts, but the scalp is penetrated *by the hair which grows from beneath it*. It is evident, therefore, that a vesicle or pustule, be it ever so small, must be penetrated and broken by the hair. In fact this always happens, and no vesicle or pustule of this disease ever arrives at a size distinguishable with the naked eye. Almost before it is formed it is broken, and the extraordinary power of its contents in communicating the disease is without parallel. The simple contact of a mother's or a nurse's arm, for even a short time, with the head of a child so affected, is sufficient, in the course of a few days, to produce a string of ringed eruptions.

There are upwards of a thousand nostrums for this disease, of which, in the course of my experience and practice, I have heard,—some of them, evidently, used under fortunate circumstance, likely to be very effectual in the cure of the affection; others, just as likely to be injurious under any circumstances; others, again, likely to do neither good nor harm.

I purpose, however, to trace the history of this "very unmanageable form of porigo," this "opprobrium of medical science," by starting at once from the only legitimate point from which we can hope to arrive at the truth,—the consideration of its pathology.

The disease was described by Turner, a very old writer on surgery, as consisting of the destruction of the hair, and this appears to have been the extent of his knowledge respecting it. Willan's observations amounted to nothing from which the pathologist could conclude that he was any thing better than a nostrum-monger. He had no idea of, and gives none of, the pathology of the disease, but he mentions a string of reputed remedies. In his study of the subject he persisted in the error of considering the form of an incrustation, or a scab, as the characteristic feature of a disease! The French dermato-pathologists have fallen into the same error. *The essence of the principles of local treatment of a diseased cutaneous surface, consists in keeping that surface clear of morbid secretions.* There should be no scab or scale allowed to form.

(*To be continued.*)

That complaints against the diet and medical treatment in *Christ's Hospital* are deserved, the pale and sickly looks of the boys well attest. These cannot be outmatched at the meanest charity school in London.—*Correspondent.*

EFFECT OF DIGITALIS ON THE FŒTUS IN UTERO.

To the Editor of THE LANCET.

SIR,—Having had occasion to doubt the propriety of employing digitalis to any considerable extent in the treatment of disease occurring during pregnancy, I am anxious to learn from those who have had more extensive experience in such cases than myself, whether or not this drug is injurious to the fœtus in utero. My own experience leads me to think that it may at times exercise a baneful influence on the fœtus. My impression on this subject was first derived during my attendance on a woman in the fifth month of pregnancy, about thirty years of age, who was labouring under typhus fever. She was twice bled at the beginning of the fever, each time to the amount of sixteen or twenty ounces, after which she took a febrifuge mixture, containing *Tinct. Digitalis*. The woman ultimately recovered, and was, at the end of the proper period of utero-gestation, delivered of a living child, whose natural bulk of body was considerably diminished, and whose skin was shrivelled and wrinkled all over, as if absorption of the substance within had been caused by the action of some stimulating medicine. Whether this appearance arose from the depletion which was necessary for the removal of the excessive arterial excitement present at the onset of the complaint, or from the stimulating effect of the digitalis, I cannot presume to say, but I am strongly borne out in my previous views of the influence of this drug on the uterine system, by the recent clinical observations of Professor Thomson, recorded in a No. of the present volume of THE LANCET.

It may be argued that digitalis, like the secale cornutum, may stimulate and excite the uterine functions without deleteriously affecting the fœtus. I have frequently given the secale cornutum in protracted labours, without the production of any apparent bad effects on the child, but there seems evidence of an opposite kind with regard to the internal use of digitalis.

I am of opinion myself, that if it do produce injury to the child, it is not the stimulating, but the sedative effect of the digitalis which does the mischief.

I am, Sir,
Yours, very respectfully,
E. WILKINSON.

Aspatria, Feb. 6, 1835.

ACTIVE PRINCIPLE OF JALAP.

To the Editor of THE LANCET.

SIR,—Through the medium of your valuable Journal, I wish to call the attention of the profession to a new remedy in the class of purgative medicines.

It has often been a matter of regret to me during my practice that we had no purgative at once *safe* and *mild* in its action, which could be conveyed in a minute quantity, when the stomach was in an irritable state, or the patient averse from medicine (which is particularly the case with children), who frequently will allow nothing of the kind to be given. However, Mr. Osborn, a scientific chemist, of Southampton, has succeeded in procuring the active principle of jalap in a very pure state, which he considers entitled to the name of "Jalapine." This preparation in the quantity of half a grain given by itself, or combined with hydrarg. submur. or hyd. c. creta, can by given to an infant in a little of its food with perfect safety and ease. From one grain to two, given in the form of pill or in a draught (if the latter, a little spirit must be added to hold it in solution), is a sufficient dose for an adult. Some cases may require three grains, but this will be but seldom needful. The preparation possesses the valuable quality of not producing constipation after its use. Trusting you will give this statement a place in your next Journal, I remain, Sir, your most obedient servant,

W. HAMILTON KITTOE,
Surgeon.

Southampton, Feb. 26, 1835.

APPARATUS FOR OBLIQUE FRACTURE OF THE CLAVICLE.—LITHOTRITIC INSTRUMENT.

To the Editor of THE LANCET.

SIR,—I have forwarded by my son a machine, of which, about a year and a half since, I sent you a description, and which I have found extremely useful in oblique fractures of the clavicle, particularly where, as is sometimes the case from a horse falling upon a person, the shoulder, ribs, or soft parts, are much injured. Another instrument, to be worn under the clothes, I sometime since gave to Messrs. ——, late Savigny's in St. James's-street.*

Respecting the lithotritic instrument

* The apparatus forwarded by Mr. Jones may be seen by any professional gentleman on application at THE LANCET Office.—ED. L.

which is making for me, the cut of which I sent you in October 1833, I may observe that I found, on calling at Mr. Weiss's, that he had used the screw, one of which Mr. Weiss's son showed me, but mine was a three-thread screw, quick in its action, but I prefer the long forceps, as by a little practice the stone may be ground down with more certainty, and, of course, with less irritation to the bladder. The great error seems to me to arise from inattention to the state of the coats of the bladder, as most cases of failure have appeared to arise from inflammation of that viscus or its extension to neighbouring parts. In the course of my life I have seen a great many troublesome cases of acute and chronic inflammations of the bladder, and have found great relief from injections of the soothing kind, at the same time using means to get rid of the general inflammatory diathesis of the system. Why not use the same means after crushing the stone? I am, Sir, your obedient servant,

WILLIAM JONES.

Lutterworth, Jan. 26, 1835.

FRENCH JOURNALS.

THE French medical journals at the commencement of the year are generally very irregularly published. This is probably the fault of the Carnival, which disarranges every thing at that period. We have been able as yet to collect only three of the monthly journals for January, viz., the *Journal des Con. Méd.*; the *Archives Générales*; and the *Annales d'Hygiène Publique*, which latter, by-the-by, though dated January 1835, did not make its appearance until the 1st of March.

This latter volume is almost completely occupied by a very long, though a highly interesting article on the ancient history, actual state, and statistics, of the *Maison de Fous*, at Charenton, by M. ESQUIROL, physician to that splendid establishment. We must refer to the memoir itself those who desire to become acquainted with the discipline pursued by the French in cases of mental alienation. The same number contains a curious case of

SUICIDE BY STRANGULATION,

without alteration of the skin of the neck or swelling of the face. The case is well worthy the attention of medical jurists:—

Josephine, aged 27 years, was received into the Salpetriere in Dec., 1834. This girl had led a very disorderly life, and was evidently attacked with mental derangement. She had formerly inhabited the country, and on coming to Paris recovered her self-possession, when her confessor, by saying she was completely lost, threw her back into her former state of depression, &c. The girl appeared sunk in melancholy, though her general health was good. In the visit she frequently demanded to die, as she said she could never be cured. During her treatment she took slight purgatives and some baths. On the 2nd January she got out of bed, descended into the cellar, and hung herself from the banister. On being examined after death, the brain was found perfectly healthy; there was some slight injection of the cerebral substance. The skin of the neck presents a depression obliquely directed from right to left; its most elevated part corresponded with the angle of the right jaw, where the mark of the knot was observed. In the course of this depression the skin was yellowish, and the subjacent cellular tissue strongly adherent; but there was no trace of ecchymosis, or of fracture of the os hyoides, &c. The lungs contained a little blood, as also did the heart; the other viscera were healthy.

The case shows that suspension may take place during life, without leaving any mark of a vital lesion in the dead body. Here we find no puffiness of the face or tongue; no ecchymosis about the neck, no luxation or laceration of the arteries or veins, nothing, in fine, except a slight furrow marked by the cord along the neck, and which did not render it possible to determine whether the suspension was operated on the living or on the dead body.

The number of the *Archives Générales*, for January (the February Number has not yet appeared) contains three original articles, viz.,

1. On the use of cold water as an antiphlogistic in the treatment of surgical diseases, by M. BERARD, surgeon to the Salpetriere.
2. Remarks on the use of calomel in the practice of medicine, by M. JORET.
3. On an epidemic dysentery at Maine-et-Loire in 1834, by M. GUERETIN.

COLD WATER IN SURGICAL DISEASES.

THE first article is a kind of supplement to the memoir lately published on the same subject, by M. JOSSE of Amiens, and which we noticed in a late No. of this

volume of THE LANCET. M. BERARD claims the priority of the method of constant irrigation by a bucket, which apparatus he used in 1833 at *St. Antoine*, while M. BRESCHET only commenced at the *Hôtel Dieu* in 1834. The principles laid down by M. BERARD are similar to those already established by M. JOSSE; it is, therefore, unnecessary for us to recur to them here; but he illustrates the efficacy of this treatment by several really surprising cases. We can only notice briefly the most remarkable.

Case 1.—This was a gun-shot wound of the right hand, in which the bullet and ramrod passed through the palm of the hand. Cold water was employed, with compresses, and was followed by accidents, when constant irrigation was employed for fourteen days, ending in a cure.

The man was a soldier, and his gun went off while he was endeavouring to draw the ball. This latter, rod and screw, went completely through his hand. The fourth metacarpal bone was fractured to pieces, and the metacarpo-phalangean articulation of the ring-finger was extensively opened. Compresses of cold water were immediately applied, but during the night they were not renewed often enough. Hence, next day, there were heat and tumefaction of the hand, and the wound was painful. Constant irrigation was then substituted. Next day the signs of inflammation were much diminished, and on the following day there was no pain, nor any heat; his sleep was sound, and his appetite good. On the fifth day pus began to form, and a part of the wound, to the extent of half an inch, was united by the first intention. The soft disorganized parts came away, the splinters were removed, and after fourteen days the state of the wound appeared so favourable, that irrigation was discontinued.

Case 2.—This was a synovial tumour between the tendons of the digital flexors, in which excision of a part of the parietes of the cyst was performed; irrigation was kept up for six days, and a rapid cure effected.

The cyst was situate immediately over the annular ligament of the carpus. M. Berard, fearing the accidents that often accompany its extirpation, made many attempts to rupture it, but in vain; he then excised the moiety of the cyst, and introduced a pledget into the wound to excite suppurative inflammation of the parietes. There was no pain, and no tumefaction, and after six days he was enabled to suspend the irrigation; in a few days more the wound cicatrized.

Case 3.—This was a stone in the bladder, in which, after the high operation, a constant irrigation of cold water into the bladder was kept up, death occurring from exhaustion after thirty-five hours, without any inflammation or infiltration of urine.

The man, fifty-five years of age, was received into the hospital of *St. Antoine*, for incontinence of urine. On examination, it was found that this was due to the presence of a calculus in the bladder: the scrotum of the patient was small, and contained no testicles; the penis was small; he had no beard on his chin, nor any hair on the pubis; and his voice resembled that of an old woman; there existed a cicatrix at the level of each inguinal ring, and, on inquiring, M. Berard found that he had been castrated at two years of age as a remedy against a double inguinal hernia; a charlatan, passing through his village, pretended to have cured the herniæ in removing both his testicles. The high operation for the stone was performed: after the introduction of the forceps it was found impossible to extract the calculus: the surgeon now endeavoured to crush the stone, but the forceps, though very strong, gave way; the calculus was now bored, and a fragment broken off; this enabled the operator to see that it adhered firmly to the posterior surface of the bladder; it was disengaged by gently passing round the index-finger, and extracted: the calculus measured two and a half inches vertically, and one inch nine lines transversely. It weighed more than four ounces. In order to prevent the development of inflammation, which was much to be dreaded, M. Berard introduced by the wound two large hollow sounds into the bladder, then closed the lips of the wound, and attached two flexible tubes to the sounds: one of these communicated with a pail of water, the other hung over a tub placed on the floor; thus two syphons were formed, and a constant current of cold water was kept up through the bladder. The patient, however, soon began to sink, and died thirty-six hours after the operation. On examination of the body, no apparent cause of death could be found: the peritoneum and internal surface of the bladder were free from any recent traces of inflammation.

Case 4.—Here was laceration of the hand, with fracture of the first metacarpal bone, cured without any accident.

The patient, a young mason, in falling from a height, hooked his hand on a projecting nail, and lacerated in a horrible manner the ball of the thumb, tearing

through the tendon of the long flexor, and fracturing the metacarpal bone. M. Dieffenbach, who happened to be present when the patient was brought in, thought immediate amputation necessary, as the only means of preventing accidents that might compromise his life; however, the treatment by cold water was adopted in preference; irrigation was employed for seven days, no inflammation supervened, and the wound was nearly quite cicatrized before the consolidation of the fractured bone.

It is unnecessary to multiply cases; let us turn to M. Berard's conclusions, which are there:—

1st. Cold water, when employed as a topic, should always act in a continued uniform manner, and sufficiently long to remove all fear of an inflammatory reaction. Irrigation by means of one or several syphons, best fulfils this object.

2nd. Irrigation thus conducted, is an infallible means of combating and preventing inflammation in cases of the most severe traumatic injuries.

3rd. The only accident to be feared is gangrene.

4th. M. Berard has not yet tried irrigation after amputation, but he firmly believes that this means would prevent most of the accidents which so often succeed that grave operation, and, at the same time, favour, singularly, the union by the first intention.

The cases reported by M. Berard in the memoir before us deserve the utmost attention; the theory which he has adapted, and the means he employs to prevent the development of inflammation in severe injuries, are perfectly in accord with the physiological doctrine of the nature of inflammation so long taught by Dr. Macartney of Dublin. We regret sincerely that the honour of a discovery which is calculated to make a revolution in surgery should thus pass into the hands of strangers.

The other papers in this number do not deserve any special notice. Take, for example, one of the conclusions drawn by M. Joret on the use of calomel; viz., "calomel introduced into the stomach in the dose of 12 grs., does not necessarily produce an inflammation of the digestive passages." We always knew the prejudice of the French against calomel, but until now we really did not think there existed in France a physician sufficiently ignorant to state the above question.

PROPOSAL TO TEST THE CONTAGIOUSNESS OF PLAGUE.

The question of contagiousness has no more decided or active enemy than Dr. Chervin. At the period of the prevalence of the yellow-fever, and during the prevalence of the cholera, he generously offered to submit his own person to any experiment which the *Royal Academy* of Paris might think fit to propose. The reappearance of the plague in Egypt has again given him an opportunity of exhibiting this noble zeal and devotion for the general good, and he has just written a letter to the minister of commerce, in which he proposes that the clothes worn by individuals affected with the plague shall be taken, placed in boxes hermetically sealed, and transported to the Lazaretto at Marseilles, where M. Chervin offers to shut himself up for a given time, wear the infected clothes, and make any other experiments that the minister may think fit to propose. As the experiment should be made on a large scale, M. Chervin thinks that France can always furnish a sufficient number of devoted men, while an unlimited quantity of vestments may be procured from Egypt. The reply of M. Duchatel is evasive, but allows it easily to be seen that the French government does not think itself authorized in having recourse to this method of clearing up the question. The minister calls to mind a similar proposition made in 1825, by MM. Lassis, Costa, and Lasserre. The question was referred to the Royal Academy of Medicine, and that learned body, though it acknowledged that experiment was the only means of resolving the problem, yet raised several weighty objections against the admissions of the demand made by M. Lassis, both with regard to its legality, the danger of the experiment, and, finally, the results that might be expected from it. Under these circumstances, the minister proposes to refer the offer of Mr. Chervin to the chambers of health and commerce, and to the corporation of Marseilles.—*Journ. Hebdom.* No. 10, 1835.

Anatomical Description of the Parts concerned in Inguinal and Femoral Hernia. Translated from the French of M. JULES CLOQUET; with lithographic plates from the original etchings, and a few additional explanatory notes. By A. M. M'WHINNIE, Assistant Teacher of Practical Anatomy at St. Bartholomew's Hospital. London: Highley, 1835 Royal 8vo, pp. 50.

THE nature of this work is sufficiently explained by the title. The original has for some time enjoyed that well-merited reputation which the accuracy and clearness of his anatomical productions have always earned for the writings of M. Jules Cloquet. The translation and lithographic plates are well executed, and English surgeons will thank Mr. M'Whinnie fo presenting them, in so portable a form, with a minute description of the anatomy of hernia,—thus supplying, to a certain extent, the place of Sir Astley Cooper's splendid but expensive work. A knowledge of the operation for hernia is more decidedly useful to surgeons than any other, and its performance is by no means difficult. It simply requires care, and an occasional refreshment of the memory, the means for which are well afforded in the present work, when the emergency for reference arises.

The following measurements explain the cause of the more frequent occurrence of inguinal hernia in the male than in the female. They very nearly agree with those published by Sir Astley Cooper:—

	Male.	Female.
	Inches.	Inches.
From the symphisis pubis to the anterior spine of the ilium	5¼	6
From ditto to the tuberosity of the pubes	1½	1⅜
From ditto to the inner margin of the external abdominal ring	0½	1
From ditto to the inner margin of the superior aperture of the inguinal canal	3	3¼
From ditto to the middle of the iliac artery	3¼	3¼
From ditto to the iliac vein	2½	2¼
From ditto to the origin of the epigastric artery	3	3¼

M. Cloquet has examined the origin of the obturator artery in 250 subjects; the results, presented in a table, at page 40, are thus summed up by the author:—

"1st. The cases in which the obturator takes its origin from the hypogastric, are the most numerous; their proportion, when compared with those in which it arises from the epigastric or femoral, is nearly as three to one. 2ndly. The obturator appears to arise more frequently from the hypogastric in the male than in the female."

THE LANCET.

London, Saturday, March 14, 1835.

IN effecting works of reform, it is always essential to success that numbers should co-operate in the attainment of one great end—namely, the improvement of our national institutions. Any man of ordinary observation and intelligence, if he will but look around him in the locality in which he is placed, may discover the existence of many things which interfere with social comfort and enjoyment which impede the progress of industry, which deprive merit of its just distinctions and reward, and which tend to and do pervert institutions of the noblest and most generous character in point of design, to purposes of peculation, of robbery, and of injustice; and of all the professions, and even of all the classes engaged in honourable pursuits, there can be found no body of men who are so deeply interested in establishing a just organization of society, as are those individuals who are engaged in the practice of medicine.

The Editor of this Journal having been honoured by the electors of the metropolitan district of Finsbury, comprehending a population of two hundred and twenty thousand souls, with a seat in Parliament, he is placed in a situation in which he hopes not only to be of real use to his constituents, but to be capable also, by co-operating with Mr. WARBURTON, and the other friends of medical reform in Parliament, to render some trifling service to his medical brethren throughout the United Kingdom. But in order to accomplish this object, there must be exertion and co-operation out of doors, and every individual who has it in his power, is called upon, by the duty which he owes to society, to add his mite to the general stock of knowledge.

In the confident expectation, therefore, that our request will not be unheeded, we solicit from our readers who are favourably circumstanced for making such detections, any accounts with which they may be enabled to furnish us, respecting abuses connected with the management of hospitals, infirmaries, dispensaries, and workhouses, and the evils arising from allowing unqualified men to undertake the discharge of medical duties, which may from time to time fall under their notice, or of which they may even hear reports or descriptions from persons with whom they are in the habit of associating.

Although dispensaries sustained by private subscriptions are included in this account, and it may be of great advantage to be made acquainted with the gross abuses existing in those institutions, still more importance should be attached to those endowed establishments which, strictly speaking, belong to the public, and are, therefore, perfectly legitimate objects of parliamentary interference and control. Thus, it should be recollected, that although an individual may have but a very indistinct or confused acquaintance with acts of improper management,—as, for example, misapplication of funds,—partiality in selecting the objects of charity,—intrigue in the election of officers,—perversions, partial or total, of the benevolent designs of the founders,—still, information thus derived, or even a suspicion entertained, may enable an observer, by obtaining, through the interposition of Parliament, certain official returns connected with the establishment, either to disabuse his mind of suspicion, or to discover facts, the proving of which would be of the greatest and most lasting advantage to the community.

In the attempt, therefore, to renovate our institutions, and to found a just system of medical law, we solicit the co-operation of our medical brethren in every part of the empire. With their aid the exertions of the medical reformers in Parliament must be eminently successful and useful; while, without the co-operation and the information which it is easy for medical practitioners to furnish, no new law for the regulation of medical education and practice, and the government of our hospitals, can be entirely free from objectionable arrangements.

As this subject is one of very deep interest, we commit it to the care of our readers, not forgetting that the success of the cause may be most essentially promoted if our brother journalists would contribute towards enforcing and extending the demand which we have thus made on the intelligence, co-operation, and humanity, of the physicians and surgeons of England, Ireland, and Scotland.

We have this week received four letters, authenticated by the names of the writers, bearing on the subject of a police report which appears in the *Brighton Guardian* of the 11th of March under the follo w ing head;—"TUNBRIDGE WELLS.

Important to Parish Officers and Surgeons."

The following of the four letters having reached us first, and having been immediately put into type for publication, is first inserted:—

To the Editor of THE LANCET.

SIR,—In your number for the 28th of February, which was lent me by a friend, I have read an account of an operation of lithotomy, which, if true, would brand the persons engaged in it as the most ignorant and inhuman of men. But having been present at the whole of the investigation in a public court of justice, I trust that I shall not be considered obtrusive if I take this opportunity of relieving the minds of the profession, and of the world at large, by declaring that *no such atrocity has been committed.*

However indignant I may feel that such untruths and wilful misrepresentations should be communicated by the correspondent of a public print, I shall not give vent to those feelings here, but content myself at present with a plain denial of those assertions and insinuations that are false or unjust, leaving it to a future occasion, and, perhaps, to some other individual, to give you a detailed account of the transaction.

1st. It is not true that the operation was what is termed "lithotomy"; it was that of cutting into the perineal portion of the urethra, to extract a calculus from that passage.

2nd. It is not true that in March last, or at any other time, the operation of lithotomy was performed on the boy.

3rd. It is not true that the incision then made (which was merely in the urethra) remained unhealed to the present day, as it was completely closed after ten days.

4th. It is not true that lithotrity was contemplated by the surgeon of a neighbouring town.

5th. It is not true that the boy was inveigled into the room by a message from the clergyman.

6th. It is not true that the "servant fainted during the process," but, feeling unwell before it commenced, he withdrew.

7th. It is not true that the boy, feeling sick, was desired to "spew."

8th. It is not true that, on being directed to stand up after the operation, he proved too weak to comply.

9th. *It is not true that any curling-irons were ever used.*

And all the "skilful medical aid" that was had recourse to in the after-treatment was that of the operator.

It is true that "another and a more correct colouring" has been "given to the transaction on its investigation in a court of justice;" for after the chairman had dismissed the charge against the clergyman, he added, "We wish it to go forth publicly from the Bench, that in referring the charge against the other defendant to the county assizes, we acquit him of all moral guilt,—of all inhumanity or professional unskilfulness; and that it is on the *legal* point that we feel unable to decide, viz., whether his power as parish-surgeon justified him in doing *that* by force, which he considered essential for the benefit of the boy."

I subscribe my name, as a voucher for what I have written, nor have I the slightest objection to your printing it with this letter; but I leave that matter entirely to your own discretion. I have the honour to remain, Sir, your obedient servant,

JOHN BRAMSTON WILMOT, M.D.
Tunbridge Wells, March 9, 1835.

Dr. WILMOT may consider himself perfectly justified in writing this letter, but it is quite clear that some of his statements are at variance with those which are contained in the authenticated documents which we here subjoin:—

The following is a verbatim copy of a report in the *Brighton Guardian* of March 11th, forwarded to us by Mr. CHARLES TRUSTRAM, of Tunbridge Wells (?):—

"A paragraph having gone the round of the London and country papers relative to a charge of assault *alleged* to have been committed by a surgeon in general practice, a clergyman of the church of England, and the master of a workhouse, upon an inmate thereof, a youth sixteen years of age, we feel great pleasure in being able to lay before the public a true statement of the case as detailed in evidence upon oath before the magistrates of our district, Aretas Akers, Robert Willis Blencowe, and Arthur Potts, Esqs., at a sitting held by them at the *Mount Ephraim Hotel*, on Wednesday last, the 4th instant, and following day. The facts, as they appeared in evidence, are as follows:—James Roberts, of Brenchley, the boy in question, deposed that he had been afflicted with stone in the bladder, for which he was operated upon by Mr. Jonathan Monckton, nephew of the parish surgeon, so long

ago as February 1834, and that a further operation was performed upon him by the same gentleman in February last, at both of which the Rev. Mr. Arthur assisted, for which (as appeared by his own deposition) he was well qualified, having in early life studied surgery, and having been present at several important operations performed by a relation of his who was one of the surgeons to Greenwich Hospital. And since Mr. Arthur has adopted the clerical profession, he has given advice to his parishioners at Broad Oak, within four miles of which no doctor resided; and at the operation which resulted in this inquiry he attended merely from motives of humanity, and with the hope of being useful to the patient by assisting his professional friend. Mr. Arthur further stated that he had employed an ingenious jobbing smith of the name of Johnson to alter a pair of curling-irons into forceps, by beating out the round parts flat to the size of his thumb-nail, which, after being finished and quenched, he took away, but *they were not used*, Mr. Monckton objecting thereto. All this occurred on the 12th of February last. There was much difficulty in getting the boy to submit to the operation; he showed great stubbornness when ordered into the committee-room for the purpose. The master of the workhouse, Thomas Russell, was ordered to fetch in the boy, which he did; but Russell was too unwell himself at the time to remain in the room. Four men, of the names of Eagles, Bridger, Joy, and Harrison, were therefore ordered to hold the boy down while the operation was being performed, which, with drawing off his shoes and trousers, seemed to form the chief ground of the assault complained of, although it is customary in hospital practice to place a collar round the neck of the patient, and tie his feet and hands together to secure him during the operation. Mr. Monckton, after making the usual incision, succeeded in extracting with his finger and thumb a small stony substance about the size of a pea, but very soft. At his request, the Rev. Mr. Arthur assisted in the operation. Every attention and comfort were supplied, and in a few days the boy was about again, and said he felt himself much better. Some idle and malicious charges having been made against these gentlemen for threatening to throw cold water on the boy, or to gag him if he resisted, and to give him half-a-crown if he kept quiet, we think it but justice towards them to state our firm belief that both were done with the humane view of relieving the sufferer.

"Isaac Hargraves, Esq., surgeon, of Tunbridge Wells, in answer to a question from the Bench, said that some time ago it was intimated to him that a boy at Brenchley had been improperly treated for lithotomy; but his first question was, whether the application to him was regular, and properly authorized by the parish officers? Mr. Outeridge, one of the surgeons of that parish, called and told Mr. H. it was; and that Mr. Monckton, sen. (uncle of the operating-surgeon), had agreed that Mr. H. should undertake the case, and he did not wish his nephew to perform any more operations. But Mr. Hargraves declined until he had the consent of the parish officers, from whom he expected a provision for the boy during his, Mr. H.'s, attention to the case. Russell said the parish officers wished to consult the magistrates thereon. This was on or about the 7th of February, a week previous to the performance of the last operation at Brenchley. Mr. Hargraves used the precaution of writing to Mr. Jonathan Monckton for his acquiescence; but no answer was returned to this letter at the time; and, finally, Russell was ordered by Mr. Joy, one of the overseers, to take the boy in a cart to Mr. Hargraves's.

"John Prince, Esq., surgeon of Tunbridge Wells, bore testimony of the professional skill and humane disposition of Mr. Jonathan Monckton (this testimony was corroborated by a reverend gentleman of the name of Lemon, whose family he had frequently attended in his professional capacity). Mr. Prince resumed with the remark, that he was not surprised at the boy's irritability, it being a concomitant of the disease.

"The Magistrates then consulted together, and said they did not view this as a question of professional skill, but as one of assault preferred by the boy's father, and ordered summonses for the whole of the parish officers of Brenchley to attend them the next morning at 11, being resolved to give the case a full and impartial hearing, their present impression being that no moral guilt was chargeable upon the parties towards the boy; and it only remained to be proved whether more force was used than was justified by the necessity of the case.

"*Adjourned Inquiry, Thursday, March* 5, 1835.—The parish officers of Brenchley attended to-day pursuant to summons.

"George Joy, one of the overseers, said he resolved with one of the parish surgeons (Mr. Outeridge) that Mr. Monckton should not perform the operation, as they had determined Mr. Hargraves should do it, the first operation by Mr. M. having been unsuccessful. The boy's health had declined for the last six months, and he sometimes lay all night crying with pain.

A short time before sending the boy to Tunbridge Wells, witness met the boy's mother near the workhouse gate, and stated there was a person at the Wells who would perform the operation without pain; it was a French operation. He said the same to the Rev. Mr. Arthur, who told him it was impossible to do it without giving pain. He (Joy) consulted with his brother overseer (Veness), who agreed to the boy's being sent to the Wells. The other officers knew nothing about it at the time; there was no vestry meeting called, nor entry made on the parish books about it. A few days afterwards he saw Mr. Outeridge (the other parish surgeon), who said Mr. Hargraves would undertake the case if the parish officers would pay 10s. a week for the boy's maintenance at the Dispensary. Joy told Russell (master of the workhouse) to go with the boy on Friday. He mentioned to Mr. Monckton when he called at his house to visit his family professionally, what he and Veness had determined on. Mr. M. mentioned three different operations for the complaint, and said he had never undertaken a case of lithotomy, but had always been very anxious about this. He (Mr. M.) said if the expense exceeded 10s. per week for the boy's being at the Wells, he, for one, should object to it. The boy was sent to the Wells with Russell, and returned, having been ordered to go again the next Friday. Mr. Hargraves gave letters to Russell for Mr. Monckton and Mr. Outeridge, with a bottle of medicine for the boy. Russell was also informed there would be more expense, as a nurse must be employed. Joy here admitted, that *if Mr. M. had not called to see his children, he should not have spoken to him on the subject.* He also admitted that *if the boy had been attacked by any casual illness, he should have still considered him as under Mr. Monckton's care.* (These two admissions of the acting parish officer will be found very important in the subsequent proceedings in this case.) For his own part he never knew any thing wrong against Mr Monckton; and the Rev. Mr. Arthur's conduct to the poor was kind and charitable. Such was his belief, although they had many complaining people about them.

"A letter was produced and acknowledged by Mr. Hargraves to have been sent by him, through Russell, to Mr. Jonathan Monckton, to which he had not received a reply until after Mr. M. had performed the last operation.

"Mr. MONCKTON said he had been kept in the dark in this affair more than any one individual in the parish, for although he attended Roberts's (the boy's father) family four months for the typhus fever, he never told him he meant to send him to the Wells. He never was told by any one that the case was taken out of his hands; that he examined the boy the day before he was to go to the Wells, and on finding the stone was in the passage he made an incision, with the hope of extracting it; but it unfortunately slipped back into the bladder, of which he then informed Mr. Hargraves.

"Mr. AKERS, on behalf of himself and brother magistrates, then addressed the defendants, stating that they fully acquitted them of the charge of treating the boy ill, or of trifling with his feelings. That so far as the Rev. Mr. Arthur was concerned, they dismissed the case altogether, and although they felt it their duty to send Mr. Monckton's case to the sessions, it was only from the doubts they entertained on a point of law,—namely, whether Mr. M. received sufficient notice from the parish officers to oblige him to consider the boy as removed from his professional care. Mr. Akers concluded with a serious reproof for the master of the workhouse, for allowing any force to be used against the boy, as he stood in the double capacity of a public guardian and as the deputy of the boy's father. The different parties then entered into the usual recognizances for their appearance at the assizes (at Maidstone) on the 17th instant.

"We admire the decision of the magistrates, as affording the poor man a further opportunity of establishing the charge of assault; at the same time we are persuaded that the accused will be fully exonerated in the eyes of the county.—The parish officers were recommended to prosecute, as the father could only sue 'in forma pauperis.' They wisely declined agreeing to that mode of proceeding until they had consulted together and with their fellow parishioners on the subject.—The defence was ably conducted by Mr. Monckton of Maidstone (brother of the accused), whose address to the bench was marked by due deference, and distinguished by clear views of the case, accompanied (as may be supposed) with great feeling for the situation of his client."

In a letter from Mr. TRUSTRAM, received by the same post as the newspaper containing the above report, some additional particulars are given relative to various parts of the transaction, and are here subjoined. With regard to the operation performed in February 1831, he says,—

"On sounding the boy twelve months

since, a stone was found in the membranous portion of the urethra, just anterior to the prostate. The stone was cut down upon through the perineum; but, just at the moment of introducing the forceps, it slipped back into the bladder. It was not considered prudent to prosecute the operation further at that moment, as the stone, which was small, might, possibly, be washed through the wound by the flow of urine, and, if not, would most probably again get into its old situation. The boy was accordingly put to bed, the wound in the perineum healing in about ten days, the stone remaining in the bladder." Mr. TRUSTRAM then proceeds in his letter to say, that the boy would allow nothing further to be done for his relief by Mr. Monckton, but that a gentleman in the neighbourhood (MR. Outeridge, we understand, one of the parish surgeons, of Brenchley) desired to place the patient under the care of Mr. Hargraves, surgeon to the Tunbridge Wells Dispensary, and there the boy went, returning with a note from Mr. H. to Mr. Monckton, offering to undertake the operation. No reply, we believe, was made to this, but on one of the overseers casually mentioning the circumstance to Mr. M., he said, "that he had not the slightest objection; but added, that if it should prove that the stone was in the urethra, he, as a parishioner, should object to it, and, as the surgeon of the parish, should choose to perform so trifling an operation himself," observing also, "that dispensary surgeons were anxious to get hold of such cases, and that if the stone was in the bladder, he (Mr. M.) would relinquish the case altogether." Mr. TRUSTRAM, adverting to the second operation says, "The patient being placed on the operating table contrary to his repeated refusals, was held by four assistants, Mr. Monckton not wishing to subject him to the bandaging usual in lithotomy. The Reverend Mr. Arthy* having introduced his finger into the rectum for the purpose of securing the stone, an incision was made in the perineum, and the stone readily exposed. It was then grasped by a pair of small forceps, but being apparently of the fusible kind, broke under the forceps. The boy became unruly, and disengaged the remaining portion from the gripe of Mr. Arthy's finger, and it receded to the fundus of the bladder. From the dilated state of the neck of the bladder, Mr. Monckton was able to pass his finger through it on the stone, and felt confident, that with a pair of longer forceps he could extract it without further extension of the incision The boy was now removed from the table, having been there not more than ten minutes. Mr. M. went across to his surgery to search for a pair of forceps, and the Reverend Mr. Arthy returned to his own house for the same purpose, but not being able to find any forceps, he procured a pair of small curling-irons,* &c." The surgeon and clergyman returned to the workhouse in about ten minutes, but Mr. Monckton, "on being shown the curling-irons in a *corner* of the room, refused to use them." The boy "recovered sufficiently to ride seven miles, twenty days after the operation, when he was able *to keep* "*standing*" in the room of examination, "during the greater part of four hours."

The third letter which we have received is from Mr. HARGRAVES (addressed to us in consequence of a letter from the Editor), in which, while abstaining from entering at length into the history of the case at present, in consequence of his personal connexion with the matter, Mr. H. says,—

"I regret that the fact of an unsuccessful operation having been performed, to which the patient was coerced against his will, has been proved; but in many of the details of it there are assertions in the statement which are not borne out by the evidence given on oath before the magistrates. * * I fear that private pique and personal animosity have had a great deal to do in giving a colouring to the matter."

The fourth letter, which has reached us, contains the following remarks:—

"I have perused attentively the statement in THE LANCET, the whole of which I believe to be strictly correct, with the exception of the curling-irons being *used*, but I believe the tears and entreaties of the poor sufferer prevailed, and prevented their application. But this I will not vouch for, the affair being clandestine and unexpected.

"Unfortunately the poor sufferer stands at present unsupported and unaided, amidst a host of wealthy foes, and not having a legal adviser the affair must fall to the ground unless the parish officers procure legal assistance for him, but this I expect will be objected to from economical motives; some of his friends, also, have veered from the side of this unfortunate and afflicted family."

* The name of this gentleman is printed *Arthur* in the Brighton Guardian.—ED. L.

* At the house of a Miss Busey, in Brenchley. —ED. L.

As this extraordinary affair, by its being referred to the sessions, is still *sub judice*, we shall, for the present, refrain from making comments of any kind on the transaction.

We have only just space to say, that on the 3rd inst., at a public meeting of the medical profession in Liverpool, held at the *Royal Institution* in that town, Dr. Rutter in the chair, Mr. G. Rogerson officiating as secretary, the foundation was laid, in the appointment of a temporary managing committee of eleven gentleman, of a great medical institution, which is to comprehend the erection of a hall, library, and museum and lecture rooms, on such a scale as shall befit an association of some of the most respected and enlightened members of the profession in this country. The proposal from the *Royal Institution*, alluded to in our Number for Feb. 28, was altogether abandoned, and it seems probable that such an arrangement will be made with the corporation of the town as will provide a suitable spot of ground on which to raise the building. In aid of the plan, the venerable and respected chairman has, as mentioned in the late report, devoted the munificent sum of three hundred pounds.

Dr. R. Macleod, one of the physicians of *St. George's Hospital*, having, as Editor of the *London Medical Gazette*, last week charged one of the surgeons of the *London University Hospital* with performing an operation, a short time since, under circumstances in which the *absence of publicity* in the proceedings afforded the opportunity of exercising highly criminal coercion towards the patient, we find room for the following paragraph, furnished to us by a reporter many weeks since, and immediately put into type for publication, a convenient space, however, for its insertion not having before been found, when making up the journal for the press. The type of the paragraph never having been "distributed," we give the notice just as it stands. The circumstances require no kind of comment from us. The truth of our reporter's statement can be attested by some hundreds of witnesses:—

North London Hospital.—The clinical theatre of this Hospital was crowded to excess on Saturday last, the 24th inst., to witness the rhinoplastic operation performed by Mr. Liston on a female about twenty years old, whose nose had been destroyed by ulceration in early life. After the operation, Mr. L. addressed some remarks to the gentlemen assembled, on the mode of performing the operation, the form of the flap, the necessary thickness and length of the connecting slip, and the formation of the column, as invented and practised in many instances by himself.

The following curious anecdote respecting a new homœopathic remedy is given as authentic in the *Journal de Médecine of Bordeaux*, where homœopathy is entirely the order of the day:—

"A lady, who had been tormented for several months with difficult digestion, loss of appetite, and other symptoms of gastrodynia, had in vain employed the ordinary remedies, when good fortune threw in her way a follower of Hahnemann. After an attentive examination of the symptoms, the worthy doctor promised a quick cure, provided she would scrupulously swallow the globules which he would send on the following morning; the patient promised obedience, and next day finding on the chimney-piece a small box containing a quantity of globular bodies, she commenced swallowing them one after the other: the first few went down with difficulty, but hope and perseverance conquered; the digestion immediately became improved, the appetite better, and the lady was in full convalescence; when her husband, who had been absent in the country, returned, and immediately demanded by what means the almost miraculous cure had been worked; the empty box was shown him in reply; the unfortunate husband devoured in secret his anxiety for some days, but finding his wife's health continue unimpaired, he confided the mystery to a few discreet friends; 'his wife had swallowed a whole box of fulminating capsules.'"

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

10th March, 1835.

Mr. EARLE, President.

FUNCTIONS OF THE FŒTAL KIDNEY.

[From a Correspondent.]

AFTER the minutes of the preceding meeting had been confirmed, a paper was this evening read, entitled "Observations on the Functions of the Fœtal Kidney, by Robert Lee, M.D., F.R.S."

The author began by observing that in the works of systematic writers on physiology, little or no positive information is contained respecting the functions of the kidneys anterior to birth. Haller, Blumenbach, Meckel, Bostock, and Mayo, have scarcely alluded to the subject, and Magendie states that the condition of the fœtal kidneys has not been ascertained. All the glands employed in digestion have a considerable volume in the fœtus, and are seen to possess some activity. The action of the others, Magendie adds, is little understood. Dr. Lee stated that it is not known, for example, whether the kidneys form urine, or whether that fluid passes by the urethra into the cavity of the amnion. Abernethy thought that the kidneys did not secrete urine until after birth; though some of the older writers maintained that the liquor amnii is chiefly formed of the urine of the child.

Dr. Lee adduced various important facts which he considered to demonstrate that the kidneys of the human fœtus, like the liver, intestinal canal, and thymus gland, are in a state of activity, and perform each their respective function, prior to birth. He first related the history of an exceedingly interesting case, in which a fœtus of eight months, still-born, had both ureters impervious, and the kidneys distended with urine. The left kidney contained four ounces, and the right nine ounces, of a fluid, which was analysed by Dr. Prout, and found to contain both urea and uric acid. Dr. Prout concluded, from his analysis of the fluid formed in the kidneys, that it was decidedly of a urinary nature, and that it afforded unequivocal proof that the kidneys form urine previous to birth,—a fact which, he observed, had often been suspected, but never demonstrated.

Dr. Lee stated that he had induced premature labour in a case on the 12th of February, 1835, in consequence of deformed pelvis, in a patient who was six months pregnant. Thirty-two ounces of pure liquor amnii flowed through the slender silver catheter with which he perforated the membranes, and neither Dr. Prout nor Dr. Bostock could detect urea or uric acid in its composition. The author remarked that this observation rendered it probable that at this early period only a small quantity of urine is secreted by the fœtal kidneys, and passes from the bladder to mingle with the liquor amnii. Dr. Lee had not, unfortunately, succeeded in procuring specimens of pure liquor amnii at the full period of utero-gestation, though he had made every exertion for that purpose; but he inferred from an observation of Berzelius, that the presence of benzoic acid and urea, detected in the liquor amnii of the human subject by Trommherz and Gaugert, proves that the urine of the fœtus flows from the bladder in the latter months of pregnancy, and mixes with the liquor amnii. In further proof of the opinion that the kidneys secrete urine anterior to birth, the Doctor quoted a remarkable case of impervious urethra, from Mr. Howship's work on Diseases of the Urinary Organs, in which the bladder, ureters, and kidneys, were all greatly distended with a fluid, which, though not chemically analysed, evidently appeared to be urine. Dr. Lee cited a second case, which had come under the observation of Sir B. Brodie, in which the fluid contained in the bladder was examined by Mr. Brande, without his discovering uric acid in its composition, though it had the other properties of urine. Two other cases were adduced, related by M. Billard, of malformation of the fœtal kidneys, and obliteration of the ureters, in which the calices and pelvis of the kidneys were distended with fluid, but it does not appear that this was subjected to chemical analysis.

SUPPLY OF SUBJECTS IN DUBLIN.

To the Editor of THE LANCET.

SIR,—I have the honour to inform you that the Anatomy Act seems to advance the cause of humanity and science here. On my return from Italy I prosecuted one of the old gang of resurrection men (Malone) to conviction. He was imprisoned three months, and this example had the desired effect. Many of them are now transported or confined for other crimes.

As a Member of Parliament anxious for medical improvements, it is proper you should be made aware of the progress of the new law in this country; and that we only require a little more active co-operation on the part of Government to render

the schools of Dublin equal to any in the world. It is hoped that every assistance will be given to forward the good intentions of the Legislature.

I beg leave to inclose a memorial of the professors and teachers of anatomy, soliciting the aid of our new Secretary of State. I request you may publish it in the first LANCET, especially as applications are now making to Government from Edinburgh and other places. I have the honour to be, Sir, your obedient servant,

JAMES MURRAY.

Merrion-square, Dublin, March 10, 1835.

P.S.—By next post I shall send you some remarks on a paper of Dr. Clanny's, published in THE LANCET of the 7th inst., on the subject of atmospheric pressure.

Letter to the SECRETARY OF STATE *for the Home Department.*

"Dublin, January 16, 1835.

"SIR,—It is natural that you should be anxious to know, and to be truly informed, how the Anatomy Act operates in Ireland, and what are the prospects it affords towards the efficient education of Medical Officers for the Army and Navy, as well as for the public in general.

"We, the Anatomical Professors and Teachers in the Colleges and Schools of Dublin, feel great pleasure in acknowledging that the progress of the new law exceeds our expectations. Last year the supplies of unclaimed bodies for dissection were deficient and uncertain, but during this session there has been a regular and reasonable supply, without any of those revolting scenes of indecency attending the odious practice of exhumation. We have now neither danger to the students, odium from the public, nor outrages from the resurrection men.

"The Inspector, Sir James Murray, uses every exertion, and devotes his entire time and attention to organize arrangements for procuring unclaimed bodies from churchwardens and poor institutions. He has struggled to render available to science and public good the remains of those who were supported in life by public bounty.

"The prudential transfer of the bodies of unclaimed paupers to the schools, is a saving to the parishes at whose expense they were formerly interred, and a prevention of scenes of vice occurring at their wakes and funerals.

"It is, therefore, hoped that the encouragement of the Government will facilitate the Inspectors' exertions in procuring those supplies which may prevent the youth of Ireland from the necessity of attending dissections in Paris or any place abroad.

"On all these grounds we repectfully solicit your support to forward the Inspector's endeavours, whose zeal and devotion we beg leave strongly to recommend to your notice and consideration. We have the honour to be, Sir,

"Your obedient servants,

"JAMES MACARTNEY, Trinity College School.
ARTHUR JACOB, College of Surgeons School.
ROBERT ADAMS, Richmond School.
JOHN HART, Park-street School.
WILLIAM HARDGRAVE, Digges-street School.
MALCOLM HILLES, Marlborough-street School.
WILLIAM ELLIS, Peter-street School.
SIMON M'COY, Mark-street School."

APPEARANCE OF THE TONGUE IN HEPATITIS.

To the Editor of THE LANCET.

SIR,—The importance of diagnostic distinctions, as regards the selection of curative agents to be employed in the treatment of disease, can be doubted by none, and any observations attempting to establish a knowledge of symptoms by which that object can be obtained, should be examined with candour.

My design is not here to enter into any of the theories of inflammatory disease, but to point out a symptom which invariably accompanies *hepatic* engorgement, and which I do not remember to have seen noticed by medical writers on that subject, as constituting a leading feature in the complaint. The peculiar indication to which I allude is, that the tongue becomes enlarged to such an extent, as to be indented by the pressure of the teeth, giving it, laterally, *a serrated edge*. This I have remarked in a great variety of instances; and, where no organic disease has existed, I have seen it gradually resume its wonted size and appearance, under the use of the remedies commonly employed in such cases. This enlarged and serrated state of the tongue is not to be noticed in any of the inflammatory diseases of the thoracic or abdominal viscera, where the liver is not implicated.

Our knowledge of the liver, as a secreting and excreting organ, I believe to be very imperfect, but trust that the inquiries now in progress by Mr. Kiernan, and other able men, may throw such light on the subject as to elevate our treatment of hepatic diseases from its present empirical character. I am, Sir, your obedient servant,

F. BUSH, Jun.

Frome, March 10, 1835.

MR. BENINGTON.

To the Editor of THE LANCET.

SIR, — I have just read the leading article in the 598th number of THE LANCET, and think you have expressed doubts of Mr. Benington's ability to treat ring-worm, which are unfounded. This gentleman, now in his twenty-eighth year, was for five years a most industrious and intelligent pupil of mine, and during that period read the works of Plumbe, Cook, Bateman, Wilkinson, and Willan, on the history and treatment of that disease, and under my superintendence cured numerous cases, some of them of a very aggravated nature, the great majority within the limited period of two months. Indeed were any of my own children at school at Hertford, I should have complete confidence in placing them under Mr. Benington's care. It must be nearly six years since he became (by my advice) one of Mr. Lawrence's dressers, and since then he has been an almost constant observer of the surgical and medical practice of *St. Bartholomew's Hospital*, except that he has occasionally given me his assistance here for a few weeks.

I feel sure that you will give space for this letter in your valuable journal, as it may serve a gentleman in every way deserving, and who has spent more than eleven years, and spared no expense, in acquiring the requisite information to secure success in the practice of his profession.

I am, Sir, yours very respectfully,

W. JEAFFRESON, Surgeon.

Framlingham, March 1, 1835.

BOOKS RECEIVED.

Pathological Researches in Phthisis. By E. Ch. A. Louis, Physician to La Pitie, Paris. Translated from the French; with Introduction, Notes, Additions, and an Essay on Treatment. By Charles Cowan, M. D. of Edinburgh and Paris. London, E. Portwine, 1835. 8vo., pp. 388. (An excellent translation of a most excellent work, which we shall notice amongst our reviews in another number.—ED. L.)

Sketch of the History of Medicine, from its Origin to the Commencement of the Nineteenth Century. By J. Bostock, M.D., F.R.S., &c. London, Sherwood, 1835.

The Epidemics of the Middle Ages: Part II. The Dancing Mania. From the German of J. F. C. Hecker, M.D., of Berlin. Translated by B. G. Babington, M.D., F.R.S. London, Sherwood, 1835. 12mo. pp. 206.

CORRESPONDENTS.

A. B. If the party was really *in practice* prior to Aug. 1815, he is "legally qualified." If the young man was not apprenticed to *an apothecary*, he will not be admitted to an examination. In the case of the son an *apprenticeship* is essential. No compulsory proceedings would succeed in the absence of either circumstance.

The sketch of "The Trio" is too mysterious for plain men.

Mr. Nicol's admonitory paragraph was too abrupt in its original form, and a better has not occurred to us.

L. The customers at the shop of the Apothecaries' Company must, we suppose, punish neglect by dealing elsewhere.

We are greatly obliged to *Mr. Spilsbury* for the pains he took to transcribe his notes of Mr. C.'s lecture; but as the views and facts contained in it are already in some form before the profession, we have decided against inserting the communication.

P. A. The criticism on the eulogium passed on the Hanwell Lunatic Asylum was five months older than the paper which called it forth, and the latter, most probably, had not been seen by half a dozen of those persons who were invited to read the former.

Mr. Hallow's letters next week.

If *Mr. Laming's* communication has not been sent to half a dozen journals, it shall appear in THE LANCET. We have not room for it in our present number.

The letter in an envelope from Glasgow was charged five shillings in consequence of its weight exceeding an ounce.

Thanks to *Mr. H.* for the inclosure.

ERRATA.—In a small part of our impression last week, page 819, col. 2, line 31, the word *santagne* was erroneously printed *fuinigne*.

The reader is also requested to make the following corrections in the paper of Mr. CEELY, on "The Contagious Epidemic Puerperal Fever, at Aylesbury" Page 813, last line, *delete* abdominal. Page 814, col. 2, line 3, *for* narcotic *read* neurotic. Page 815, col. 2, line 20, *for* nurses *read* nares. Same col. line 39, and page 816, line 12, *for* nurse *read* nurses. Page 816, line 19, *for* giving *read* gave. Col. 2, line 32, *for* case *read* cases (deleting the semicolon). Same col., line 58, *for* and ℈j Hydr. Submur. *read* i. e. ℈j Hydr. Submur. Page 817, col. 2, line 56, *for* determination *read* termination. Also let the headings of the three forms, page 813, stand thus, I. The Acute Syncboid; II. The Low Typhoid; III. The Insidious; and preserve the same headings in their relative places throughout the paper,—the facts and views in which were embodied in a course of lectures on "Midwifery and Puerperal Medicine," lately delivered at the Aldersgate Street Medical School, by Mr. W. A. Walford.